



Established in 2004, Your Castle Real Estate has grown to become the largest independent and 7th largest real estate company on the Front Range according to the Denver Business Journal, with more than 500 agents in 7 offices. Currently, we are the 175th largest and 5th fastest growing real estate company in the country. We sold over \$1.2 billion of real estate in 2015.

In the past few years, Your Castle has appeared in many local and national publications including recent awards from the Denver Business Journal and Inc. 5000. Look below for more of our awards and media to which we have contributed.

At Your Castle, we are passionate about delivering exceptional consumer experiences. By offering a complete suite of real estate services, we ensure that we meet our consumers' every need. From sales and rentals, to commercial and new builds, we have experts in every field to guide you skillfully from beginning to the end of your real estate journey.

We believe that access to the best and most timely information can dramatically shape our decisions and no one does more research on the local housing market than Your Castle. Today's consumer needs a trusted resource that can separate signal from noise and help them navigate the complex process that real estate has become. With our extensive knowledge in every aspect of the field, and fueled by consumer research and insights, we are the go-to source for market information and education.

Your Castle Real Estate: Local Knowledge. Total Commitment.

Awards and Honors...



**America's
Fastest-Growing
Private Company**
2014: #2951
2015: #2163



**Denver's
Fastest-Growing
Private Company**
2013: #5
2014: #5



**Top 200
Real Estate
Brokerage
in the Nation**
2014: #186

As Seen In...



Prices are up 11% in the prior 12 months vs historical 6%. Inventories are tighter than last year, especially for homes under 1,700 SF. In 2017, we expect 6-8% appreciation, modest unit sales volume increases, and continued tight inventories. The crunch is / will be tightest in the first-time buyer market. No relief in sight under \$350K.

Metric	Performance	Observations
Average Home Price	3Q15 vs. 3Q14: +11% 4Q15 vs. 4Q14: +10% 1Q16 vs. 1Q15: +8% 2Q16 vs. 2Q15: +9% 3Q16 vs. 3Q15: +10%	Prices grew 8.5% in 2014, 11% in 2015 and 9% 2016 YTD. Our historical appreciation rate from 1971 to 2014 averaged 6.3% per year. Much of the above-average gain is due to the severe shortage of small (cheap) homes available to sell. The mix has shifted to higher end properties. Recent above-average gains were also driven by low inventory (esp: low / mid range of market). In our view, smaller size segment appreciation will continue to outpace larger home categories in 2017-18.
MOI (Months of Inventory)	10/01/15: 1.8 MOI 01/01/16: 1.0 MOI 04/01/16: 1.0 MOI 07/01/16: 1.5 MOI 10/01/16: 1.7 MOI	MOI has been stable to declining for 48 months. On 10/1/16 it was 1.7 months. The smallest 50% of market (homes up to 1745 sq. feet) have approximately 0.8 MOI – a very strong seller’s market. The luxury market (largest 10%) is a buyer’s market, at 7.6 MOI. Denver will remain a strong sellers market at lower price points for at least another 12-18 months. There is slight oversupply of luxury homes. That will likely continue into 2017.
Showings per Active Listing per Month	3Q 2012: 10.6 3Q 2013: 10.8 3Q 2014: 13.1 3Q 2015: 13.2 3Q 2016: 12.0	Showings are a good leading indicator for UC... which predicts sales. Showings in 3Q16 were about the same as 3Q15. Since 2013, “desirable” homes in good condition under \$350K that are priced accurately still sell rapidly with many showings. Sometimes with multiple offers (though not as often as Spring 2015/2016). This is true at all but the highest price points. Overall the market is “as hot” than it was in the fall of 2014 and 2015.
Under Contract (UC)	10/01/15: 4,719 01/01/16: 3,413 04/01/16: 4,656 07/01/16: 5,609 10/01/16: 5,202	UC is a good leading indicator of sales. At the end of 3Q16, the number of homes UC was +10% vs 3Q15. Increasing time requirements appraisals (due to the refi boom) is driving some of the time UC gain. We anticipate 4Q16 sales volume to be about the same as 4Q15.
Number Sold	3Q15 vs. 3Q14: +2% 4Q15 vs. 4Q14: 0% 1Q16 vs. 1Q15: +2% 2Q16 vs. 2Q15: -6% 3Q16 vs. 3Q15: -4%	In 2014 unit sales declined -7% vs. 2013. 2015 volume was flat from 2014. So far 2016 unit volume is down. No sales bubble here! Price increases have not (yet) brought extra inventory in the market. It’s inevitable that increased prices will increase inventory, but it is impossible to know when. 2017 may see slight increases in unit sales volume. When appraisers catch up with backlog, there may be a one or two quarter one-time increase in sales volume.
Inventory	10/01/15: 5,419 01/01/16: 2,987 04/01/16: 3,126 07/01/16: 4,666 10/01/16: 5,052	Inventory levels continue to stay historically low, especially for smaller homes. This will continue to drive big price increases on the low end. Supply and Demand 101 predict inventories should have increased in 2013... we’re still waiting. In our view, inventory for the smallest 50% of homes will remain tight – or get even tighter – in 2017. While it’s difficult to buy, do it now if you can. It could be more difficult in 2017-18.

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T1 - Time Period 1 - October 2014 - September 2015
 T2 - Time Period 2 - October 2015 - September 2016

Note: Data from Metrolist (10/4/2016); analysis by Your Castle Real Estate, Inc
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DENVER HOMES Update: September 2016 City	Number of Sales								Days on Market			Avg ASK \$000		Avg SOLD \$000			
	Current Active	Current U/C	% U/C	Sold T1	Sold T2	Chg Sales	MOI	Sold T1	Sold T2	DOM	Average Asking	Ask vs. Sold Px	Sold T1	Sold T2	Chg Price	Avg Disc	
Arvada	283	286	50%	2,028	1,984	-2%	1.7	26	30	4	539	32%	366	407	11%	0.4%	
Aurora	574	761	57%	5,183	5,036	-3%	1.4	22	20	(2)	451	36%	302	332	10%	0.8%	
Brighton	135	143	51%	1,031	1,064	3%	1.5	28	28	-	459	31%	313	351	12%	0.1%	
Broomfield	122	166	58%	1,012	964	-5%	1.5	34	27	(7)	748	63%	423	460	9%	0.3%	
Castle Pines	61	27	31%	220	190	-14%	3.9	40	46	6	963	47%	578	655	13%	-1.7%	
Castle Rock	368	222	38%	1,674	1,639	-2%	2.7	42	44	2	944	98%	456	477	5%	-0.7%	
Centennial	224	188	46%	1,636	1,578	-4%	1.7	22	21	(1)	595	34%	407	444	9%	0.0%	
Cherry Hills Village	51	15	23%	81	81	0%	7.6	94	107	13	3,722	73%	1,897	2,147	13%	-5.2%	
Commerce City	103	116	53%	849	882	4%	1.4	24	26	2	342	14%	275	301	9%	0.4%	
Conifer	54	45	45%	202	228	13%	2.8	51	47	(4)	757	61%	437	469	7%	-1.7%	
Denver	1,016	1,154	53%	8,610	8,467	-2%	1.4	23	26	3	748	63%	420	459	9%	0.0%	
Edgewater	7	10	59%	75	66	-12%	1.3	11	19	8	440	21%	332	363	9%	-0.4%	
Englewood	94	96	51%	749	776	4%	1.5	20	20	-	827	84%	420	449	7%	-0.3%	
Evergreen	141	85	38%	519	511	-2%	3.3	59	49	(10)	1,276	108%	577	614	6%	-1.7%	
Federal Heights	2	6	75%	28	21	-25%	1.1	12	14	2	234	5%	196	222	13%	1.8%	
Golden	128	123	49%	746	675	-10%	2.3	42	41	(1)	938	63%	510	574	13%	-1.0%	
Greenwood Village	68	22	24%	164	154	-6%	5.3	69	68	(1)	1,809	44%	1,100	1,253	14%	-2.9%	
Henderson	13	33	72%	212	202	-5%	0.8	17	17	-	347	9%	290	317	9%	0.2%	
Highlands Ranch	193	228	54%	1,700	1,612	-5%	1.4	20	22	2	651	34%	449	487	8%	-0.1%	
Lakewood	162	222	58%	1,568	1,583	1%	1.2	22	24	2	542	36%	363	399	10%	0.1%	
Larkspur	54	22	29%	137	116	-15%	5.6	84	93	9	738	24%	555	593	7%	-2.3%	
Littleton	329	328	50%	2,488	2,294	-8%	1.7	25	24	(1)	776	73%	415	449	8%	-0.1%	
Lone Tree	55	25	31%	193	180	-7%	3.7	57	57	-	1,089	41%	764	771	1%	-1.9%	
Northglenn	22	54	71%	397	420	6%	0.6	12	11	(1)	302	7%	247	281	14%	1.9%	
Parker	344	288	46%	2,050	2,047	0%	2.0	33	35	2	721	54%	431	469	9%	-0.6%	
Pine	40	25	38%	91	103	13%	4.7	53	47	(6)	670	61%	359	417	16%	-1.5%	
Thornton	194	265	58%	1,863	1,949	5%	1.2	19	26	7	427	24%	308	344	12%	0.8%	
Westminster	173	178	51%	1,535	1,366	-11%	1.5	22	26	4	592	63%	337	363	8%	0.8%	
Wheat Ridge	42	69	62%	368	370	1%	1.4	24	33	9	583	43%	344	407	18%	0.1%	
Grand Total	5,052	5,202	51%	37,409	36,558	-2%	1.7	26	27	1	732	70%	396	431	9%	0.1%	

*Above SF

1 < 1000 sq ft (smallest 10%)	264	427	62%	3,756	3,443	-8%	0.9	14	16	2	314	14%	246	276	12%	1.0%
2 1000-1350	323	677	68%	6,531	6,112	-6%	0.6	14	15	1	365	15%	286	317	11%	1.0%
3 1350-1850	644	1,208	65%	9,932	9,240	-7%	0.8	17	18	1	408	15%	329	354	8%	0.6%
4 1850-2550	1,105	1,396	56%	10,082	9,881	-2%	1.3	28	28	-	491	14%	402	429	7%	-0.2%
5 2550-3400	1,012	797	44%	5,112	5,205	2%	2.3	46	45	(1)	611	8%	550	564	3%	-1.0%
6 3400+ sq ft (biggest 10%)	1,704	697	29%	1,996	2,677	34%	7.6	74	70	(4)	1,217	34%	938	905	-4%	-2.1%
Grand Total	5,052	5,202	51%	37,409	36,558	-2%	1.7	26	27	1	732	70%	396	431	9%	0.1%

1 \$195K or less	22	58	73%	1,875	673	-64%	0.4	18	22	4	144	-13%	164	165	1%	-1.9%
2 \$195K to \$245K	88	247	74%	4,524	2,354	-48%	0.4	13	15	2	225	0%	222	225	1%	1.0%
3 \$245K to \$320K	464	1,141	71%	9,910	8,628	-13%	0.6	14	14	-	286	1%	281	283	1%	1.2%
4 \$320K to \$430K	1,124	1,755	61%	10,621	12,223	15%	1.1	23	20	(3)	377	2%	368	369	0%	0.3%
5 \$430K to \$590K	1,311	1,171	47%	6,382	7,802	22%	2.0	39	38	(1)	505	2%	493	493	0%	-0.6%
6 \$590K +	2,043	830	29%	4,097	4,878	19%	5.0	62	60	(2)	1,203	36%	889	885	0%	-1.6%
Grand Total	5,052	5,202	51%	37,409	36,558	-2%	1.7	26	27	1	732	70%	396	431	9%	0.1%

CHARTS FOR MOST CLIENTS



Why does Denver have low inventory of homes and condos to buy?

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How does today's inventory compare to historical patterns?

Page 11



Has this ever happened before? Can we learn from prior market situations?

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How much have Denver homes appreciated over time?
How about condos?

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Have the market trends impacted large and small homes the same way?

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Page 18



How do these price, inventory and marketing time trends vary by neighborhood or city?

Page 5

Inventory levels of homes.

- On the left side of the chart:
 - The solid line on the top of the chart is the number of homes and condos for sale, from 2008 to today.
 - Notice the line is very high in 2008, due to LOTS of bank foreclosures.
 - Buyers didn't buy as much during the downturn due to the scary media headlines and job loss.
 - As a result inventories were high.
 - The dotted line on the bottom shows the number of homes sold each month
 - Notice its been trending upwards.
 - This was caused by an improving economy and growth in the population.
 - Note more homes are sold in the summer than the winter
 - Investors buy consistently all year.
 - Families with kids in school prefer to move in the summer.

- On the right side of the chart
 - Notice that the number of sales is about the same as the number of homes for sale.
 - There's very little inventory and it's competitive for buyers.
- Other observations
 - We didn't arrive in this low inventory situation overnight. It took almost a decade to burn off all of the excess bank inventory.

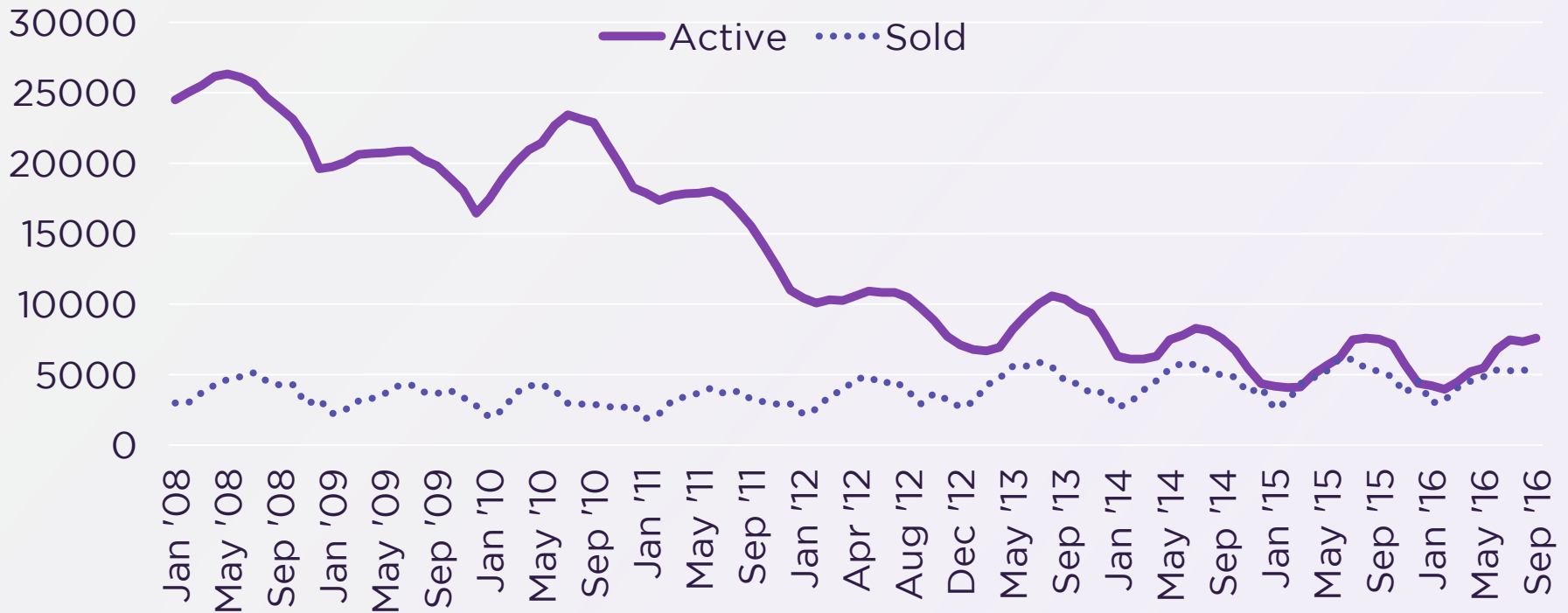
What does it mean for the client?

- As long as the inventory is tight
 - Buyers will have to compete hard (write great offers) to win a home.
 - Sellers will generally be calling the shots

Inventory levels of homes and condos available for purchase are historically low. It took several years for the inventory to get this tight; it will take several years for inventory to build to historically “normal” levels.

**DENVER METRO (HOMES, CONDOS AND TOWNHOMES)
INVENTORY (TOP LINE) AND MONTHLY SALES (BOTTOM LINE), 2008-2016**

End of Month Active Inventory



Data Source: Denver Metro Association of Realtors: DMAR Market Trends Report October 2016

Months of Inventory (MOI) is a great metric to track the strength of the market. It is the measure of how long it would take for all the properties on the market to be sold if no more inventory came on the market.

- For e.g., if one home is selling per month in a certain neighborhood and there are currently 6 homes on the market, there would be 6 MOI in that neighborhood. (Note that Six MOI = 90 days on market.)
 - MOI was high in the mid to late 80's, reflecting our slow Denver market at that time.
 - As the market strengthened going into the 90's the MOI plummeted. During the 90's MOI was under 4, a strong seller's market.
 - MOI began increasing in 2001 and leveled off around 2004 at 6-7 (buyer's market).
 - As the market began to strengthen after our downturn in 2007 - 2009 the MOI went down quickly. This indicates there are more buyers than sellers, and housing inventory is not keeping up with housing demand. This is where we are currently in the market.
 - We have way more demand for homes than we have supply so prices are going up. What does it mean for the client?

What does it mean for the client?

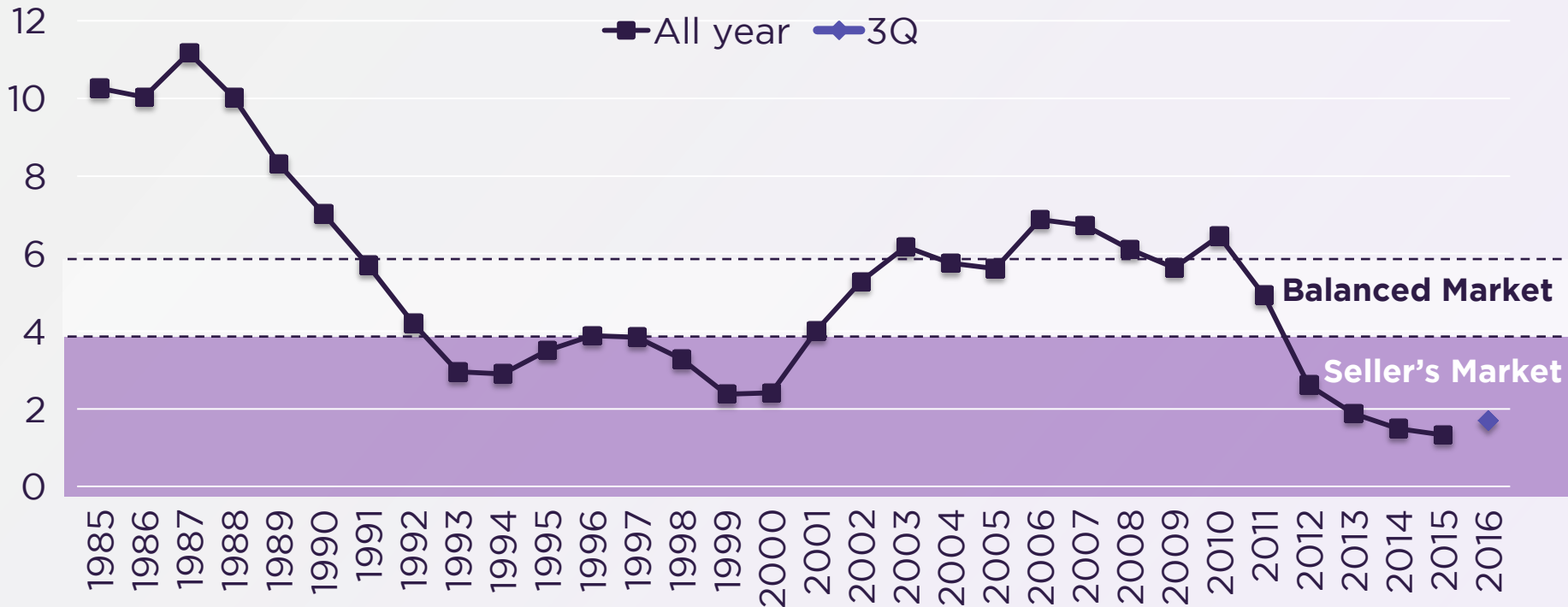
- It is critical for your clients to understand the market in order to make correct decisions.
- Low MOI means a strong sellers' market with all that implies:
 - Multiple offers,
 - Picky sellers,
 - Buyers need to have their act together with strong contracts and pre-qual letters, etc.
- Sellers: use this to help show your sellers how strong the market is to list.
 - Educate them on the difference between a buyer that is pre-approved vs. pre-qualified, and that not all offers are equally strong.
- Buyers: educate serious buyers on how to be a strong buyer.

We have been through this before. Inventory is tighter now than in 1999-2000, but not by much. MOI on 10/01/16 was 1.7.

MONTHS OF INVENTORY (MOI)

Average MOI

Buyer's Market



Balanced Market

Seller's Market

Data Source: ReColorado.com

Clients always want to know how the market's doing. Start by giving them a historical context of the Denver market.

Important points:

- The average priced home in metro Denver in 1971 was \$27,000!
- On average, home prices rise 6% per year, just a bit above inflation.
- Homes have gone up in price all but 4 years in the past 44! So, just because we're at record high prices DOESN'T mean prices have to fall next year. People who say that are wrong 90% of the time!
- "Experts" love to talk about a 7 year cycle. However, do you see one on the chart? Prices rose from '71 to '87 (16 years). They held about steady for 4 years. Then rose for another 16 years. Then dropped for 3 years. Note how large the 2006 - 2009 drop was.
- Currently prices have been rising for 6 years.
- Prices rose another 11% in the past 12 months.

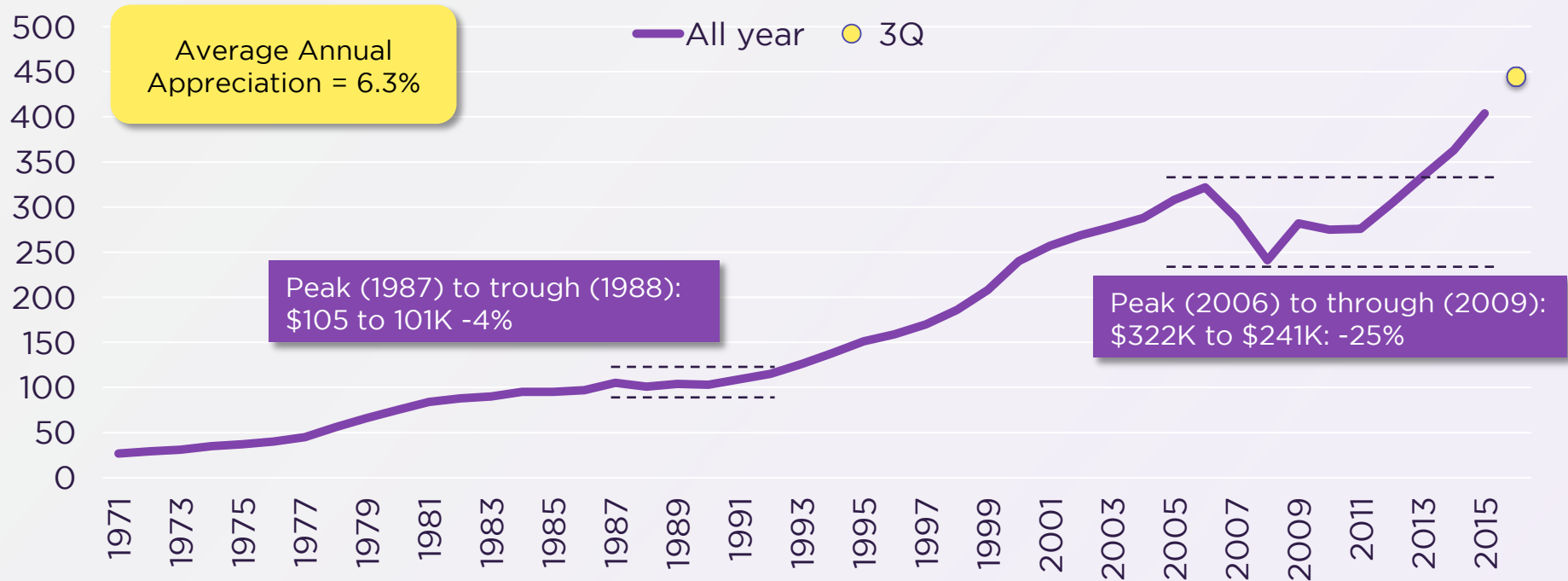
What does it mean for the client?

- It's important for clients to understand the market and prices move in long waves. It's hard for them to appreciate this in a 24X7 news cycle era.
- Stay informed on articles on Zillow and the New York Times but don't get too caught up and make a flash decision based on them.
- Look at the long term trends to best understand the market and how it can help them make their decisions.

Average Denver home price from 1971-2014 was mostly an upward march: +6.3% per year. In last recession, prices dropped 25% from 2006 peak, hitting bottom in 2008. Prices rising ever since, reaching all time highs in 2Q16 at \$450,000, for 3Q16 the average sales price was \$445,000.

DENVER METRO (HOMES ONLY, NOT CONDOS OR TOWNHOMES)

Sales Prices in \$000



Data Source: ReColorado.com

Similar to the pricing trends for single family homes, condo prices have increased 5.4% per year since 1972. Many people think condo prices react differently or zigzag much faster up and down than single family home prices. The chart shows they don't.

- Overlay this chart onto the chart for homes and you'll see their long term prices trends are very similar. This surprises everyone!
- Note that the drop in condo prices during the '80s recession was a lot larger than for single family homes. But the drop during the last recession was actually less dramatic for condos.
- So anyone who thought condo prices would drop more than home prices during the most recent downturn in the 80's would've been wrong!

You'll often hear real estate commentators say things like, "condo prices always start going down before houses", or "condos are a leading indicator of the great housing market." The data does not support these fluffy statements, so educate your clients on using data, not silly myths.

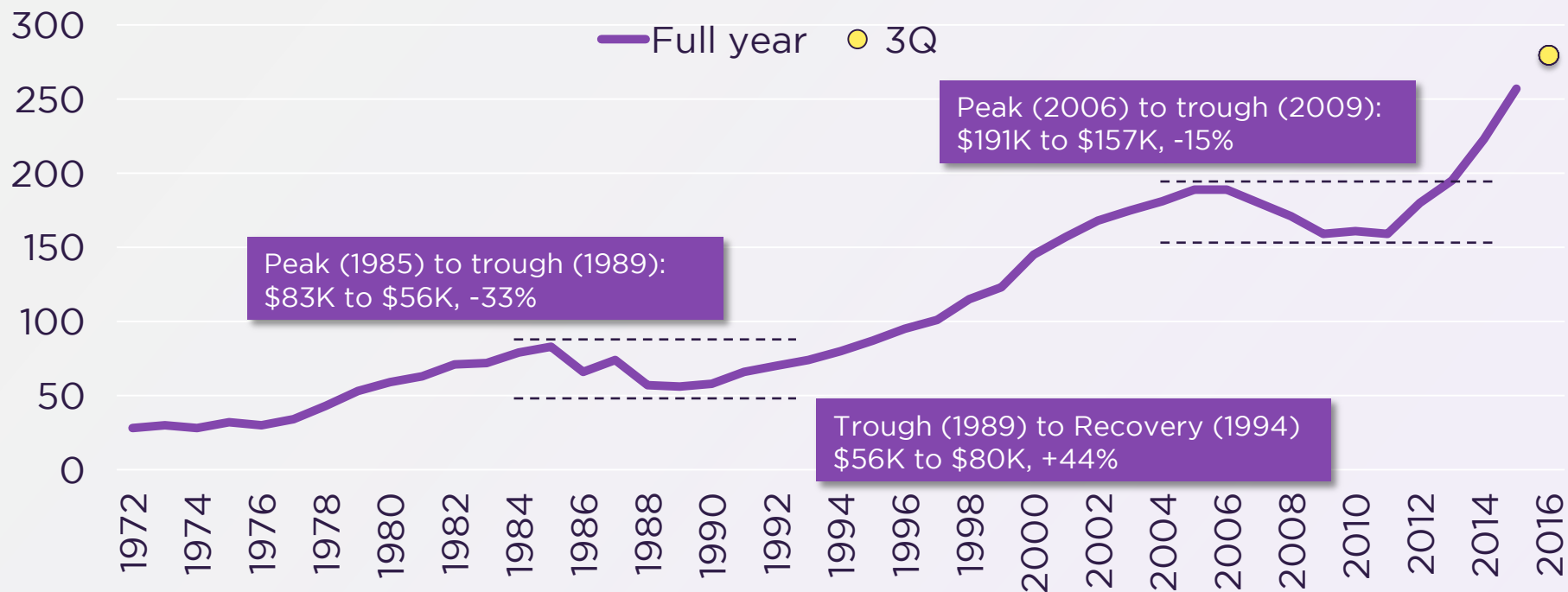
What does it mean for the client?

- It's important for clients to understand that according to the data the condo market and single family home market move very similarly.
- If an article or broadcaster say differently, educate them on this chart.

Average Denver condo price from 1972 to 2014 has mostly been a march upwards: appreciating +5.3% per year. 2015 condo prices hit all time highs, up 15% from 2014.

DENVER HOMES (NO CONDOS OR TOWNHOMES)

Sales Prices in \$000



Why did condos appreciate less than homes? One guess: The average home price in 1972 was \$29K, and the average condo price was \$28K. We'd guess the initial condos were relatively luxurious in great locations. Condos built since then have been positioned as "entry level" - smaller than homes, and thus less expensive.

Data Source: ReColorado.com

Performance of different size homes.

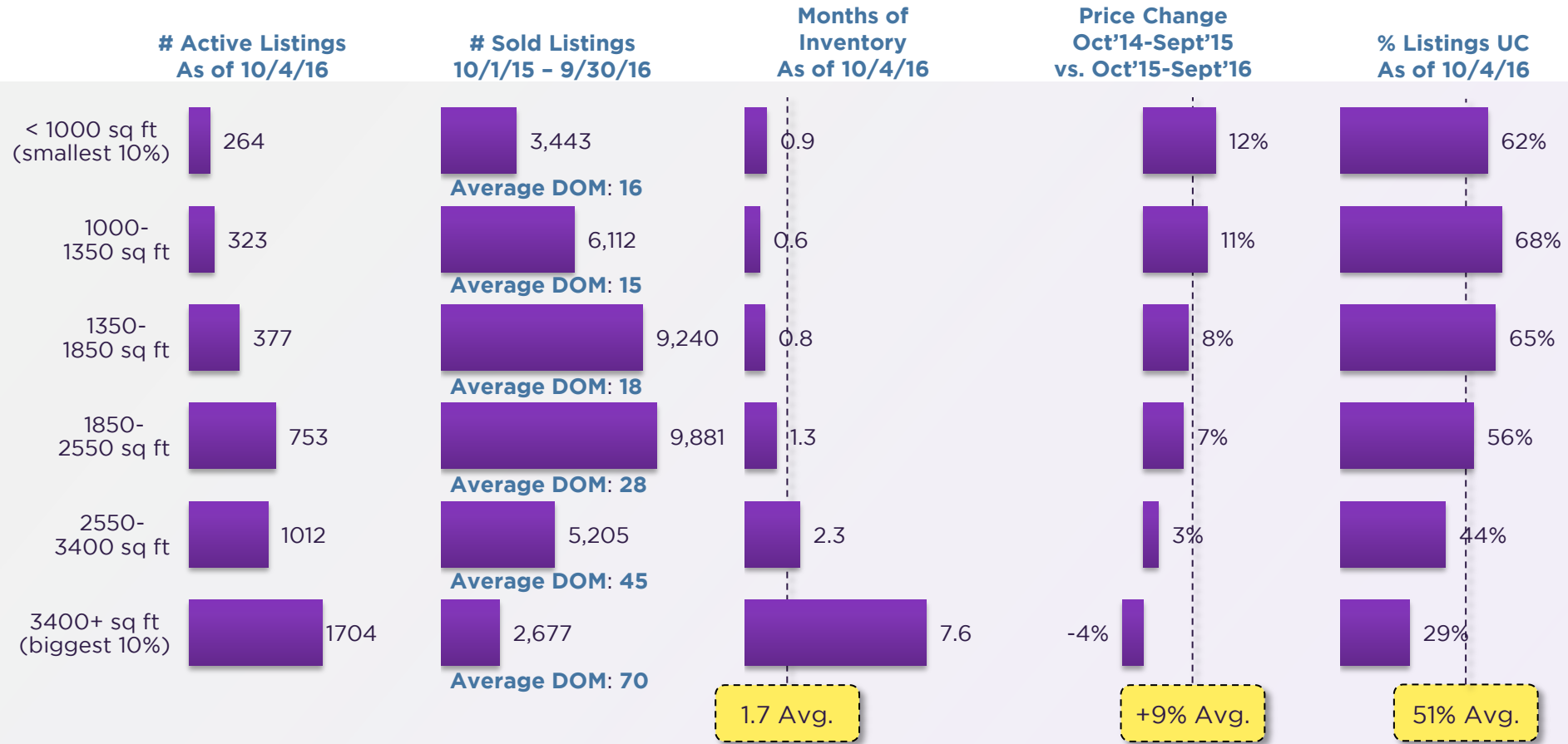
- Let's look more closely at different price segments of home sales.
 - This chart breaks sales down into the sizes of homes: under 1,000 sq. ft. (smallest 10%), 3,400+ SF (biggest 10%) and four buckets in between.
 - It looks at the metrics for each size bucket so you can accurately assist your clients much more in making buying and selling decisions.
 - Instead of just looking at neighborhood or type of home or price range we can get right down to the size of the home.
 - For e.g., if your client is looking to buy an 1,800 sq. ft. home you'd look at segment 3. 1,350-1,850 sq. ft.
 - You see that DOM is 18, there's only 0.8 MOI, prices have risen 8% in the past year.
 - 65% of the properties in this size range on the MLS are ALREADY under contract.

What does it mean for the client?

- It's critical for a smart buyer or seller to understand everything they can about their market, down to the size range of the property in question.
- This slide helps you provide specific, quantifiable data to your clients based on the size of their home so they can make the right decisions.
- Used in conjunction with other data like neighborhood metrics and local comps, this chart will help your clients make better decisions.

Overall, there was 1.7 month of inventory (MOI) on 10/4/2016. There is less than 0.9 MOI on homes under 1,850 SF (very strong seller's market). Homes under 1,850 SF are generally selling at a 0.9% premium to asking price, not at a discount.

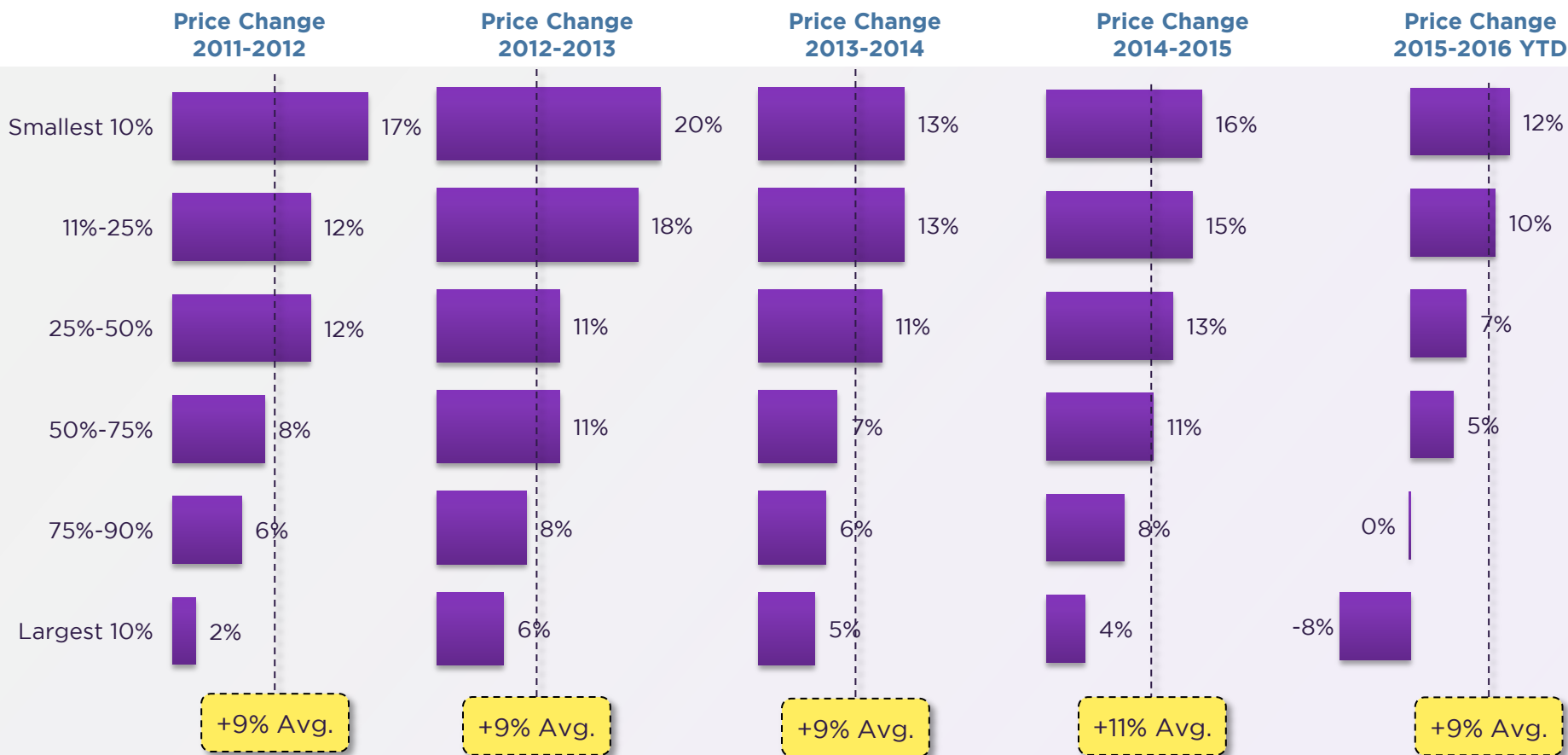
DENVER HOMES (NO CONDOS OR TOWNHOMES) BASED ON ABOVE GRADE SF



Data Source: ReColorado.com

Smaller home appreciation has been outperforming larger home appreciation for five years. Given the supply / demand balance (as measured in MOI), this may continue for another year or two.

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



Data Source: ReColorado.com

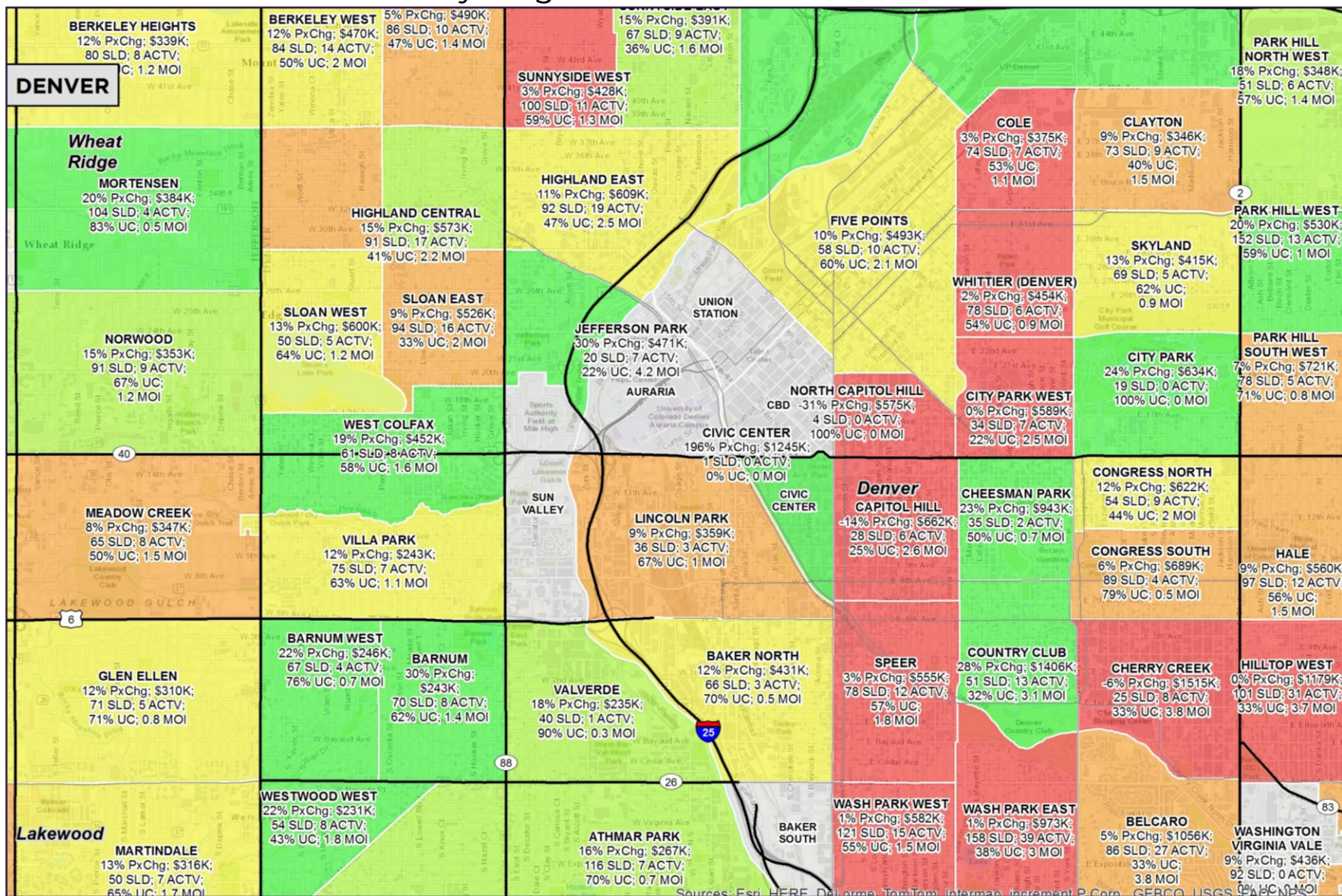
There is a wealth of information in the Price Change Map.

- It provides the year over year price change in each neighborhood of metro Denver along with:
 - The current DOM (days on market).
 - The average price (12 month).
 - The percent of properties on the MLS currently under contract.
 - Number of homes sold the previous year.
 - The number of Active properties at the time the snapshot was taken.
 - The current MOI (months of inventory).
- Not only do you have this information for each neighborhood but at a glance you can compare each neighborhood to any other.
- The red neighborhoods had the weakest market in the past year. The dark green had the strongest.
- It's fascinating to watch neighborhoods change over time!

What does it mean for the client?

- Everyone wants to know how their neighborhood is doing. Or how the neighborhood they are considering is doing. Or how the neighborhood where they own rental properties is doing.
- Show this map to every client you work with. It's very likely they will stop listening and analyze the map to look for their neighborhoods of interest. Try it, you'll see!

Shows detailed trends data by neighborhood.



BUYER CHARTS

Q Is it better to rent or buy?

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Q How much wealth could I generate for my family by ...
Buying our first time house / condo
Trading up to a bigger place

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Q Is it still a good time to buy? Isn't the market overheated? Is it too late?

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Q Historically, how much higher were mortgage rates in the past? Will interest rates go up? How could higher interest rates impact the market?

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Q Have recent increases in home prices made houses unaffordable?

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Home owners are the 1%'ers!

- Well, it's not quite that simple .. but what is true is that the vast majority of wealth in America is held by home owners, not renters.
- The average net worth of a U.S. home owner in 2012 was \$174,500, compared to just \$5,100 for the average renter.
- The numbers are shocking and renters definitely aren't aware of this, so educate them. Let them know that if they want to build wealth over time owning a home is the tried and true formula.
- Investors (landlords) with a few rental properties do even better!
- The more the world changes, the more it stays the same – buying a home is the right thing to do to house one's family and build long term wealth.
- Or they can just make their landlord happy (and wealthy) forever. Whichever they choose.

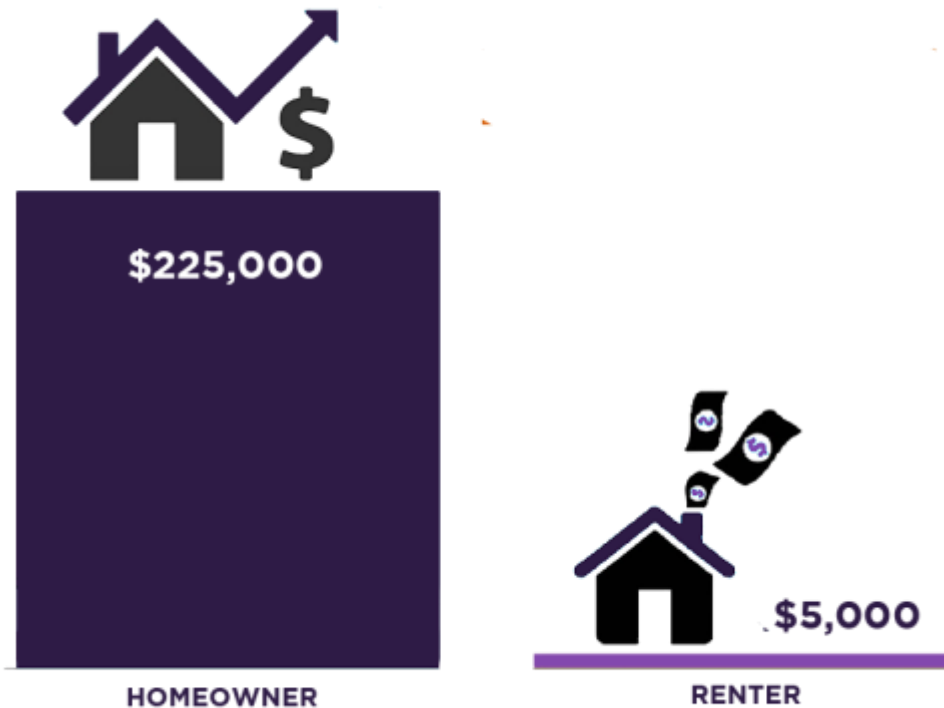
What does it mean for the client?

- If you are renting you should **STRONGLY** consider buying if you want to build wealth. The numbers are clear.

Buying is generally more affordable and less expensive than renting. In addition, research by the Federal Reserve found that home owners accumulate 35x more net worth than renters over their lifetime.

AN AMERICAN FAMILY'S NET WORTH

It's still a very good idea to buy vs. rent.



Data Source Federal Reserve

Denver wealth creation for **first time buyers**. The Federal Reserve chart about net worth is interesting, but let's try to make it a bit more tangible for Denver.

- We'll consider several typical scenarios – this one is for a first time buyer
- The top left looks at what that first time buyer client might face if they buy today.
- The bottom left examines how much more their payment might be in a year if..
 - Home prices go up 5%
 - Interest rates go up 0.5%
 - The payment could go up 11% if you wait for a year (and what will your rent do in the interim?)
- The right side is a chart depicting...
 - Top: The home value, with 5% annual appreciation.
 - Middle green: the mortgage balance, which is paid off over time.
 - Lower heavy red line: the accumulated equity (“wealth creation”) for the client.

What does it mean for the client?

- The first time buyer's 5% down payment of \$12,500 turns into \$228,500, or +1700%.
- For many buyers, this gain would be tax free!
- You also get to save on rent expense.
- Potentially, you deduct your property taxes and mortgage interest as tax deductions, reducing your tax burden. These benefits are not included here. Talk to your CPA.
- Historically, the stock market (S+P 500) returns around 11% per year before tax or 8% per year after tax.
- If history predicts the future, that \$25,000 down payment invested in the stock would worth \$54,000 (after tax) in ten years, for a 115% return.

If you buy a home today vs. next year (First Time Buyer). Over \$195,000 in wealth creation in ten years!

ASSUMPTIONS

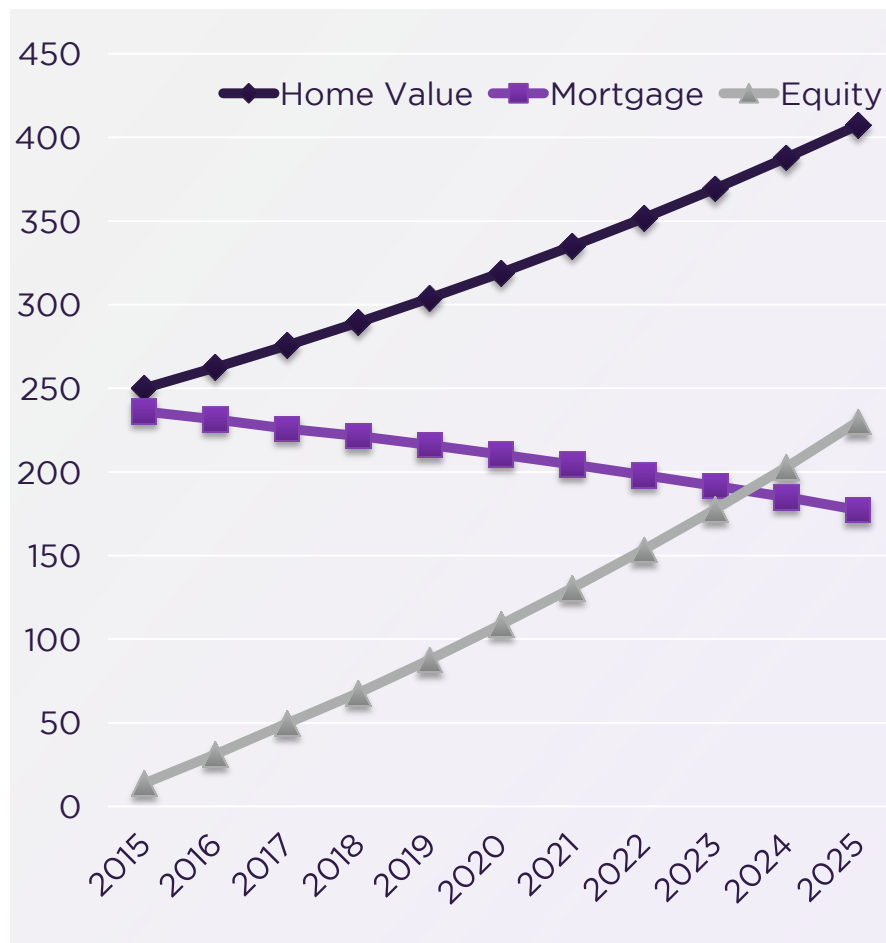
Buy now

- Purchase price: \$250,000
- Down payment %: 5%
- Down payment \$: \$12,500
- Rate: 4.25%
- Amortization: 30 years
- Payment: \$1,107
- Appreciation %: 5% per year
- Appreciation \$: \$157,000
- Loan pay down: \$ 59,000
- Simple ROI: 1700%

Wait 12 months (“watch market”)

- Assume mortgage rates +0.5%
- Assume home appreciation +5%
- Payment in '16: \$1,232
- Payment change: +11%

PROJECTED HOME CHANGE IN VALUE



Denver wealth creation for trade-up buyers. The Federal Reserve chart about net worth is interesting, but let's try to make it a bit more tangible for Denver.

We'll consider four typical scenarios – this one is for a first time trade up.

- The top left looks at what that client might face if they buy today.
- The bottom left examines how much more their payment might be in a year if..
 - Home prices go up 5%.
 - Interest rates go up 0.5%.
 - They payment could go up 11% if you wait for a year.
- The right side is a chart depicting....
 - Top: The home value, with 5% annual appreciation.
 - Middle green: the mortgage balance, which is paid off over time.
 - Lower heavy red line: the accumulate equity (“wealth creation”) for the client.

What does it mean for the client?

- The buyer's 20% down payment of \$72,000 turns into \$360,000, or +500%.
- For many buyers, this gain would be tax free!
- Potentially, you deduct your property taxes and mortgage interest as tax deductions, reducing your tax burden. These benefits are not included here. [Talk to your CPA.](#)
- Historically, the stock market (S+P 500) returns around 11% per year before tax or 8% per year after tax.
- If history predicts the future, that \$72,000 down payment invested in the stock would worth \$155,000 (after tax) in ten years, for a 115% return.

What changed from prior example?

- Down payment from 10% to 20%.
- Purchase price from \$250K to \$360K.
- Rate goes down a little (bigger down payment).

If you buy a home today vs. next year. Over \$285,000 in wealth creation in ten years!

ASSUMPTIONS

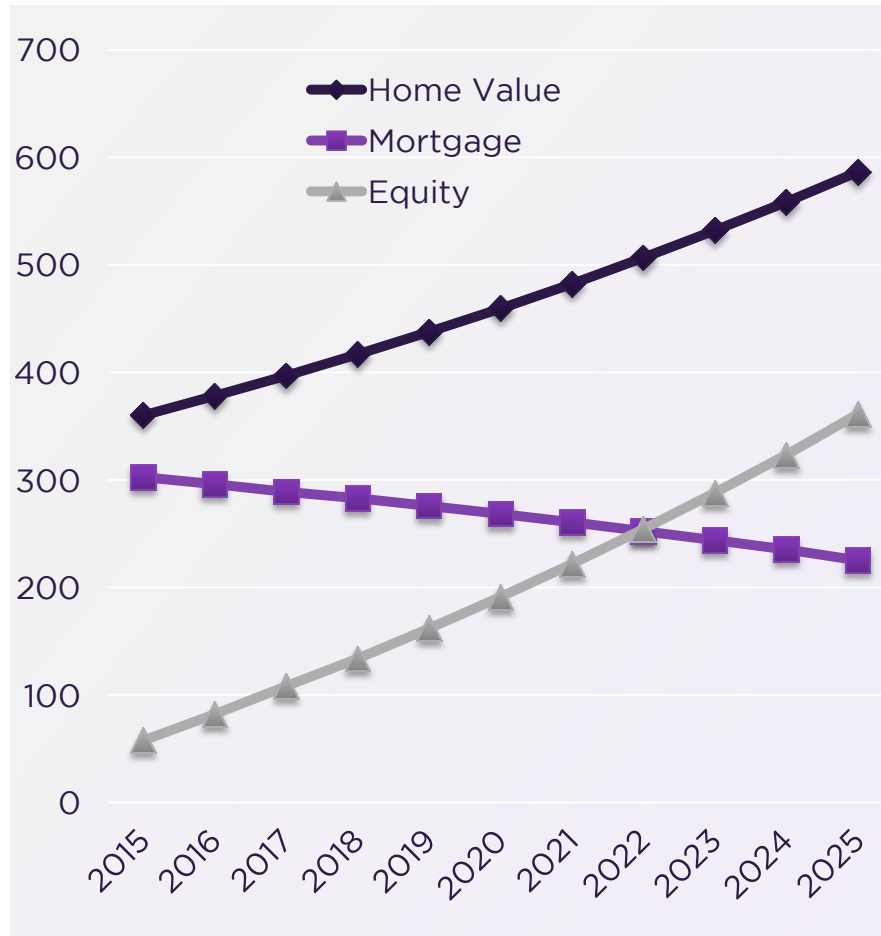
Buy now

- Purchase price: \$360,000
- Down payment %: 20%
- Down payment \$: \$72,000
- Rate: 4.00%
- Amortization: 30 years
- Payment: \$1,375
- Appreciation %: 5% per year
- Appreciation \$: \$226,000
- Loan pay down: \$ 61,000
- Simple ROI: 500%

Wait 12 months (“watch market”)

- Assume mortgage rates +0.5%
- Assume home appreciation +5%
- Payment in '16: \$1,530
- Payment change: +11%

PROJECTED HOME CHANGE IN VALUE



Population and unit sales. We're not in a bubble, since we're selling exactly the right number of homes for the city's population. Not like 2005.

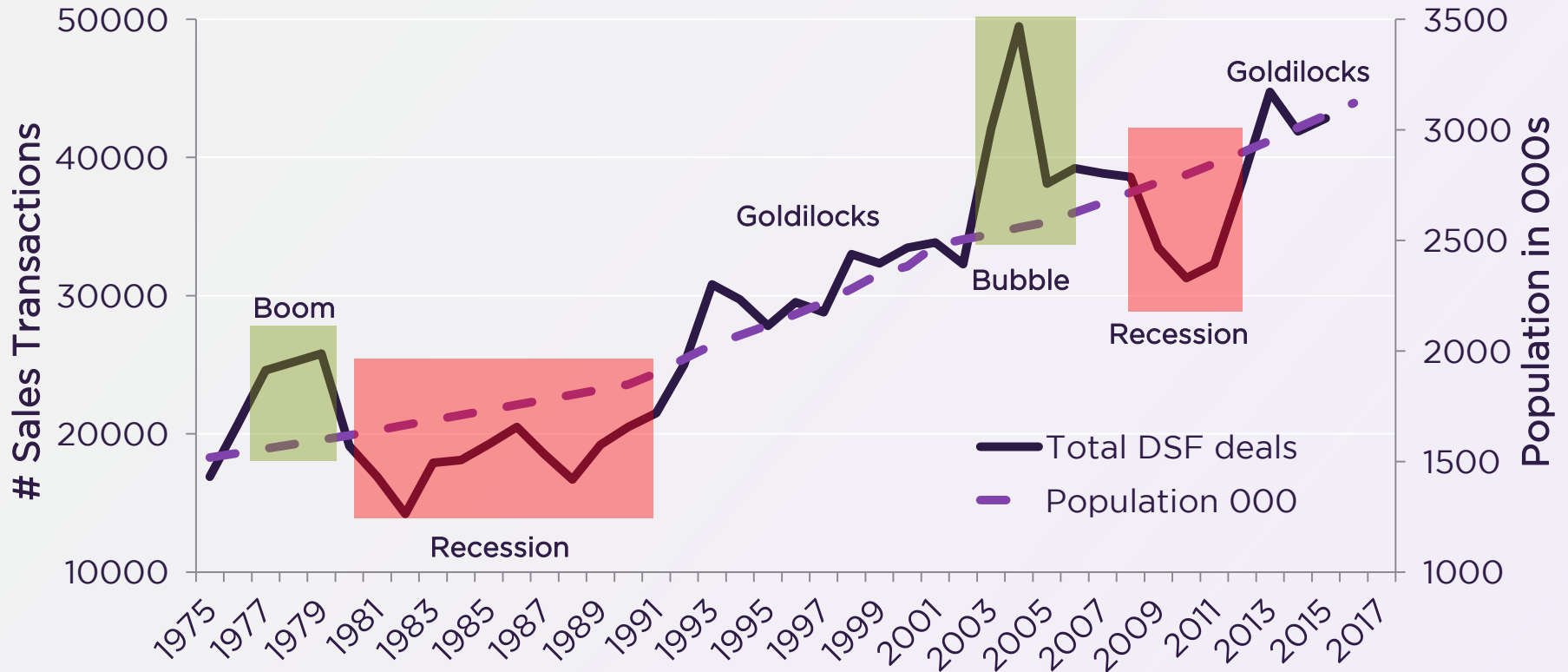
- Let's see what we can learn from history to get insight into our future market.
 - This chart compares the number of home sales transactions to the population of metro Denver.
 - The blue line is the population (right axis) - basically the number of expected homes sales in a year given the population that year.
 - '75 - '79 - coming out of a recession there are a lot more home sales. What you'd expect.
 - '80 - '92 - big recession in Denver. People don't buy homes when there is a lot of unemployment and consumer confidence is low.
 - '93 - '02 - our local economy improves, workers get more confident and there are a lot more homes sales.
 - '03 - '05 - huge boom in home sales due to the culmination of irrational lending practices (e.g., "liar loans / stated income loans"). We go way beyond the average number of sales for the existing population.
 - '06 - '09 - the inevitable reaction to a boom. The market busts, sales plummet.
- '10 - '13 - the inevitable reaction to a bust. The market turns and home sales skyrocket.
- '14 - surprise! The number of sales in '14 was actually lower than in '13. The inventory is so low there just aren't enough homes to buy. Everyone thought that '14 sales would skyrocket and lead us to another bust but they were wrong. (It's hard to predict the future!).
- '15 sales were about even with '14.

What does it mean for the client?

- The upshot? We're selling almost EXACTLY the number of homes in our market of 3 million people as we should.
- While in '06 a bust was likely to follow the huge number of sales from the previous 3 years, that's not the case now.
- There is no evidence from this data that any sort of bust is on the horizon.

Sales unit volume relative to population fluctuates depending Denver's economy. 2014 sales volume was 11% off the 2004 peak, 2015 volume was only +1% ... Metro Denver now has 18% more people than it did in 2004!

RELATIONSHIP BETWEEN POPULATION GROWTH AND HOME SALES



Data Source: ReColorado.com

Mortgage interest rates from 1970 to present day.

- Interest rates spiked in the early '80s and have been more or less dropping since then.
- Currently rates are about the lowest they've been for 40 years.
- Note that the direction of the rates – increases and decreases – does not follow the patterns of the real estate market.
- Those who say if rates do X then Y then Z will happen. However, with real estate volume they are mostly wrong. **There is very little correlation between interest rates and the housing market.**
- Someday interest rates will go up. That's about all we know. Experts have been predicting a rise in interest rates for 10 years, and they've been wrong every year. Someday they will be right.

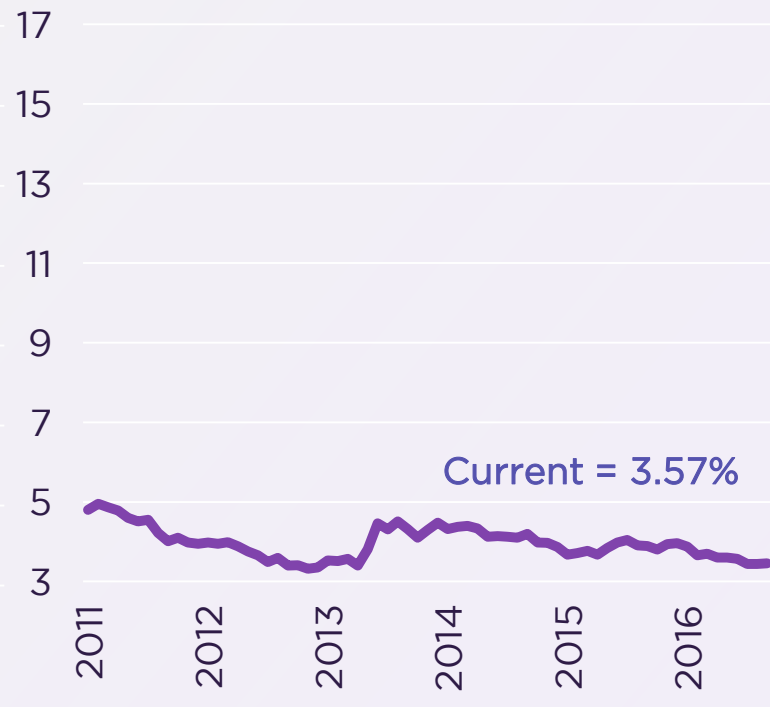
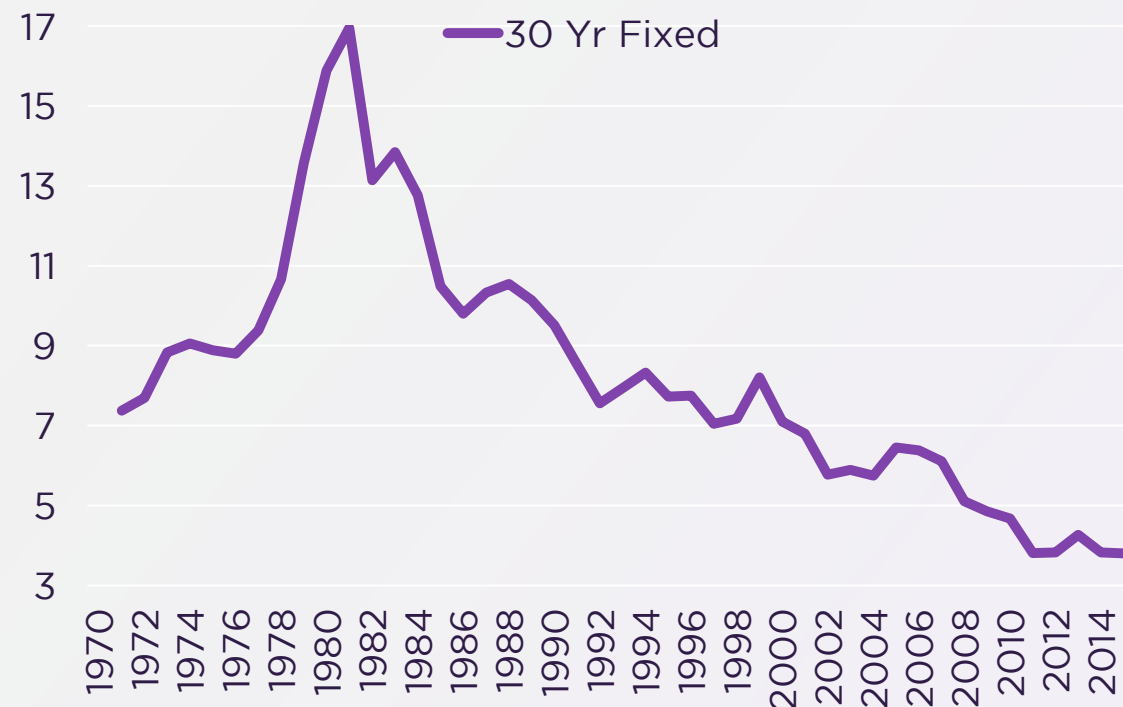
What does it mean for the client?

- Clients should buy and sell their homes when their needs dictate.
- They should never try to predict what interest rates are going to do (impossible) or what the market will do if interest change (again, impossible).

Mortgage rates are up modestly recently, but are still very low by historical standards. A \$60K household can afford a \$310,000 house at 3.5%. At 4.5%, they can afford \$275,000.

30 YEAR FIXED RATE: 1971-2013

30 YEAR FIXED RATE: 2011-15



'70s Avg = 9%

'80s Avg = 13%

'90s Avg = 8%

'00s Avg = 6.5%

'10s Avg = 4.1%

Payment, P+I, \$200K loan

\$1610

\$2210

\$1470

\$1260

\$965

Max home \$60K person can afford

\$170,000

\$125,000

\$190,000

\$220,000

\$290,000

Source(s): Freddie Mac, Your Castle Real Estate
http://www.freddiemac.com/pmms/pmms_archives.html

This chart seeks to help us understand how affordable (or unaffordable) homes have been in metro Denver since 1970.

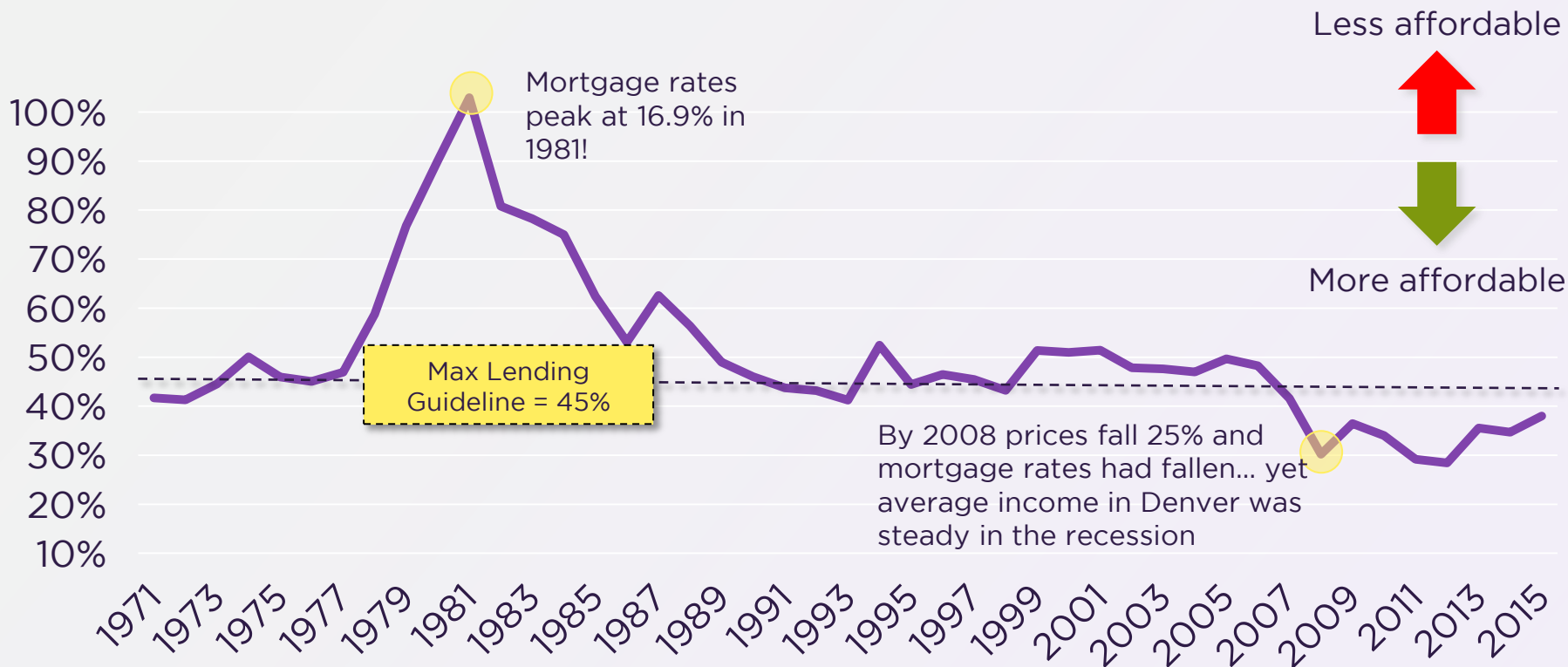
- Lenders use a metric called Debt to Income (DTI) ratio to determine whether they will loan money to a buyer. The higher the DTI, the more debt a borrower has vs. income, the less qualified they are to borrow, the less likely they can get a loan.
- What the blue line shows is that DTI peaked (meaning home affordability bottomed out) during the sky high interest rates of the 80's. It was hard to buy a home when interest rates were 16%.
- Since then interest rates have moved lower, which has pushed the blue line lower over the past 35 years.
- Today, the average DTI in metro Denver is below 40%, a historically low figure. This is another way of saying that homes are historically AFFORDABLE today, the opposite of what you always hear, even with prices marching upwards the past 6 years.
- So looking at home prices rising it's easy to conclude that they are "too high" and "have to come down (because of gravity or some such nonsense)" but this assessment misses the big picture which is HOME AFFORDABILITY, not just home prices.

What does it mean for the client?

- So when your client presents an article that says homes are at the peak and need to come back down, educate them on this data.
- Sit with them and explain home affordability.
- Make sure they understand that home affordability is what counts, not just home prices.

We compared average Denver per capita income, average home Denver price, and the average annual mortgage rate to find DTI (Debt to Income). A lower number means more affordable. We're still near the historic low for the past 45 years.

DTI (AVERAGE DEBT TO INCOME) FOR DENVER METRO



Source(s): Freddie Mac, Your Castle Real Estate
http://www.freddiemac.com/pmms/pmms_archives.html

This chart shows that given our historical inflation rate and wage increases, homes are still relatively affordable in metro Denver!

On the left side:

- The solid line shows homes prices since 1981.
- The dotted line shows homes prices in real dollars. Real dollars are dollars taking out inflation - dollars in inflation (and wage) adjusted prices. When you take out inflation, the rise in home prices has been much lower over time because inflation and wages have risen about 5% over time while home prices have increased 6% over time.

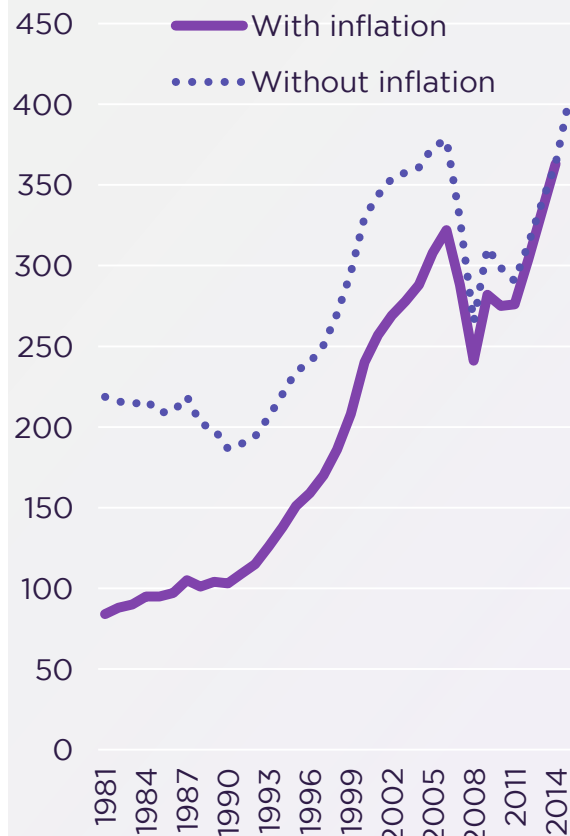
On the right side:

- The solid line shows the average Principle, Interest, Taxes, and Insurance payments since 1981.
- The dotted line shows Principle, Interest, Taxes, and Insurance payments in real dollars, (inflation and wage adjusted dollars) which is what really matters. Rate goes down a little (bigger down payment).
- What you see in this chart is today's average PITI is NOT historically high. It's actually about average for the past 20 years, and way below what it was in the '80s when interest rates were so high.

Since mortgage rates are historically low, Denver's home payments are historically still very affordable... cheaper than 2005-2006 with or without inflation.

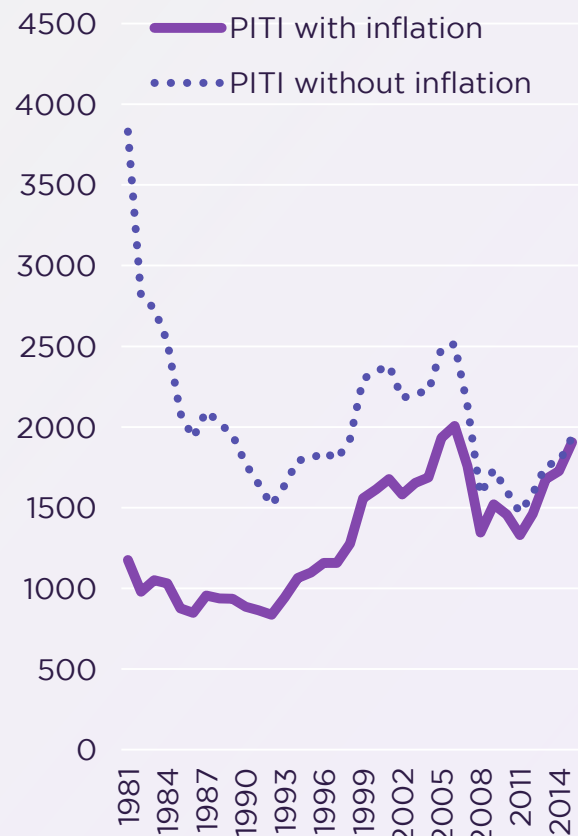
DENVER METRO HOME PRICES (NOT CONDOS)

Sale Prices in \$000 w/ and w/o inflation (CPI) factor



DENVER AVERAGE PITI

With and without inflation (CPI) factor



OBSERVATIONS

- If you adjust out inflation, PITI for the average home in Denver has averaged \$2050 over the past 35 years.
- 2015: \$1935 per month, less than the historical average.
- What if the average mortgage rate went up 1%? The PITI last year would have increased from \$1935 to \$2165
- If the mortgage rate +2%? The PITI last year would have increased from \$1935 to \$2405. That's still cheaper than 2005-06. Cheaper than 1981-1989. On par with PITI in 1995!

Source(s): Your Castle Real Estate analysis. Based on information from REcolorado®, Inc. And the Apartment Association of Metro Denver

SELLER CHARTS



How does showing traffic vary by month?
What's a "normal" number of showings?

Page 41



How the price of the home impacts the
expected number of showings?

Page 43

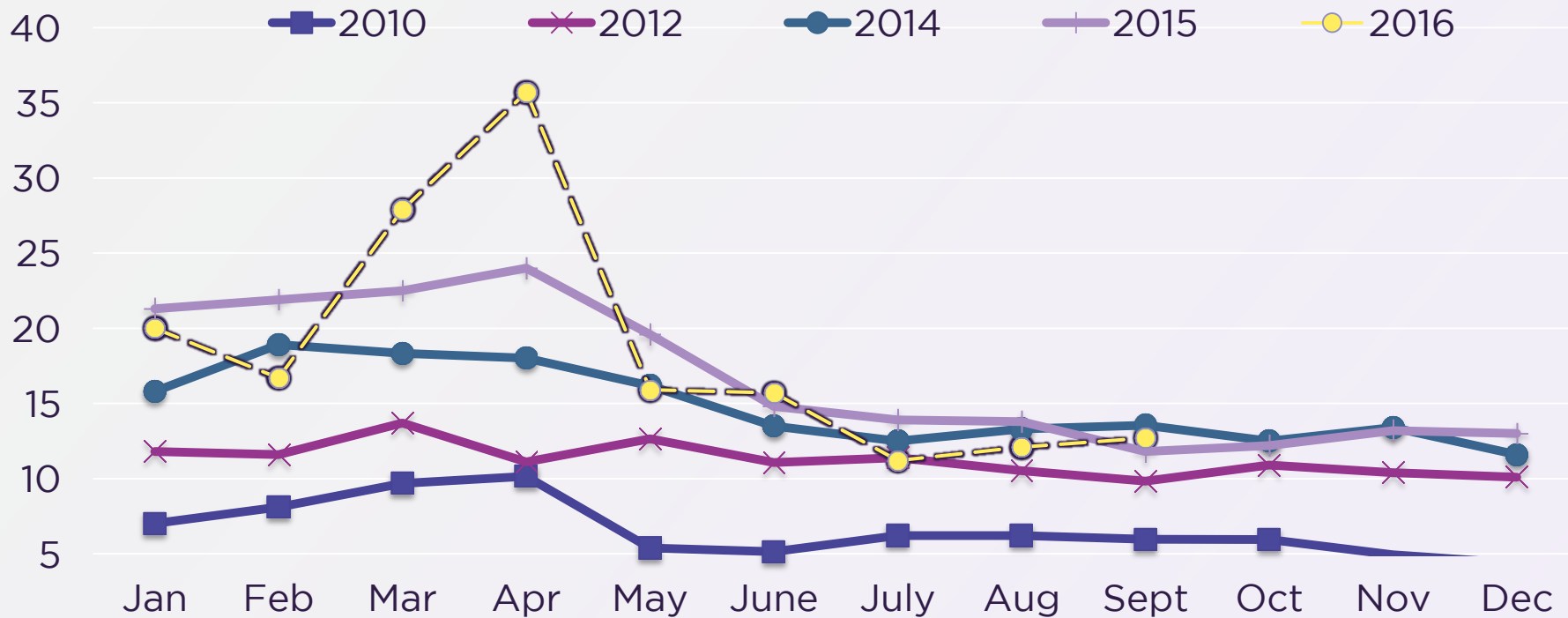
Average Number of Showings/Active Listing/Month is a great way to get insight on the strength of the market.

- For e.g., let's say a town has 10 listings and there are 100 showings in January. Then $100/10 = 10$ showings/listing/month. The higher the number the:
 - More showings there are, and/or
 - The fewer listings there are
 - So, the higher the number the stronger the seller's market.
 - Remember from a previous slide 2012 was the breakout year of price hikes. Look at the purple 2012 line. You can see this jump happened just as prices were about to leap upward as this metric forecasts the sales market a couple of months ahead of time.
 - So when clients ask "how the market is", show them the most current version of this graph so they can look forward a couple of months in the market.
 - You can see the strength of the market the past few years as the number continued going higher and higher as more buyers looked for homes and fewer homes were on the market.
 - When this number begins dropping it will indicate a slowdown in the market, just as the opposite indicated a speed up.
 - As you can see, the numbers for 3Q and 4Q have been dropping somewhat, showing us our market has slowed a bit. We're about on par with 2013 and 2014.
- What does it mean for the client?**
- When the number is relatively high it is a seller's market as it is now. The numbers have skyrocketed the past few years as more folks are looking for homes (demand) than selling homes (supply).
 - A balanced market is in the range of 10. We hit 23 the spring of '15!

Showings in 2015 outperformed 2014 overall. 1Q16 saw extremely strong showing traffic, in 2Q16 showing traffic returned to levels more in line with recent years. **It's still a great time to be a seller!**

SHOWINGS / ACTIVE LISTING (HOMES + CONDOS FOR YCRE, 2010 - 2015)

Showings per listing



Source: Your Castle Real Estate analysis. Based on information from Centralized Showing Service

Showings per active listing, price point, continuing the discussion from the previous slide...

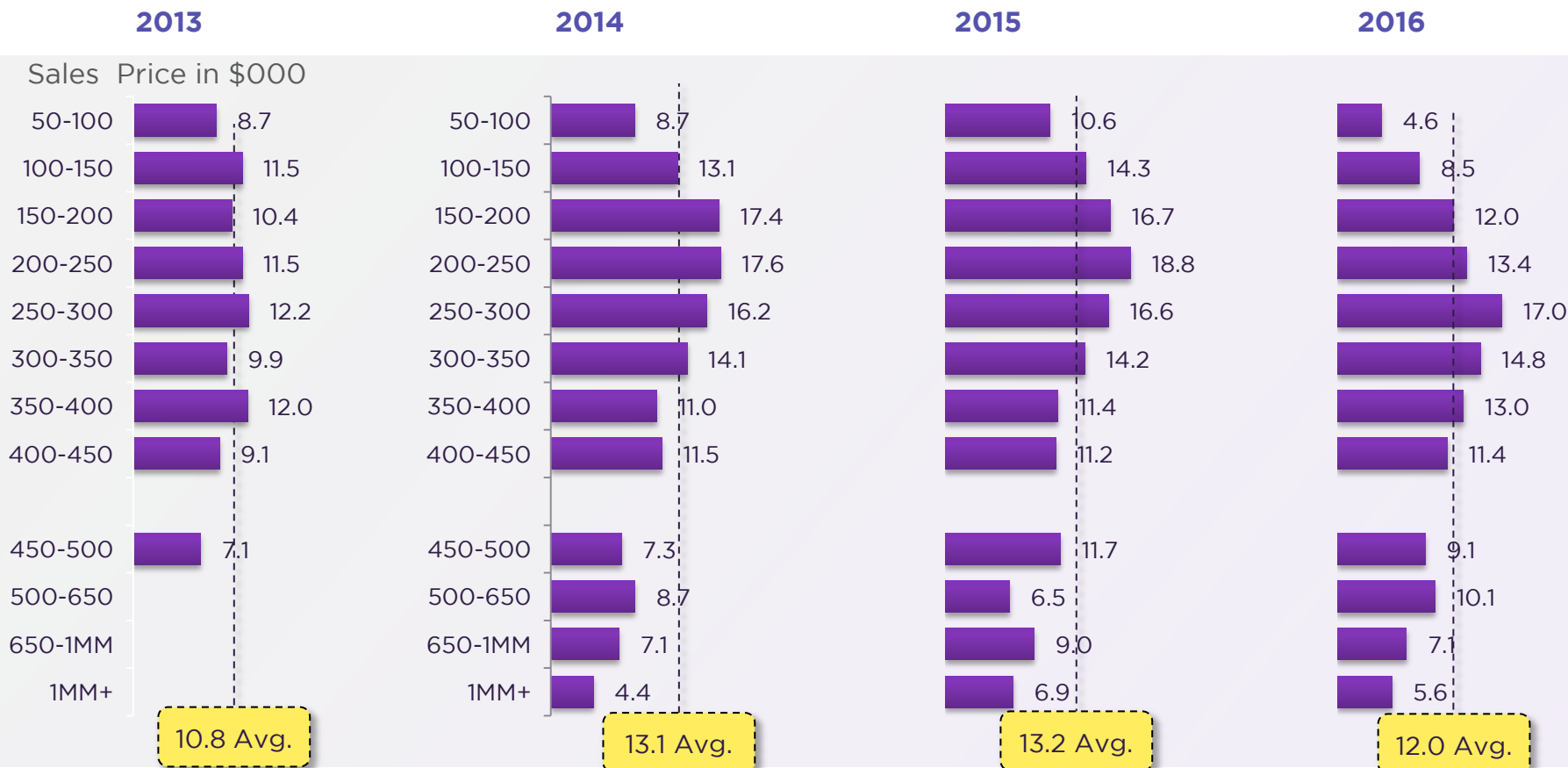
- It shows in bar graph format what the Average Number of Showings/Active Listing/Month was for properties in different price ranges from '12 - '15.
- The lowest price range is \$50k - \$100k. The highest ranges up to \$1,000,000+ in the most recent years.
- The numbers in the yellow circles are the yearly averages. Look how the averages have increased over the past 4 years.
- The \$200k - \$250k averaged 20 showings/month, what an incredibly strong market!!!

What does it mean for the client?

- Sellers want a higher number - more demand and less supply.
- Buyers want a lower number - more supply and less demand.
- Educate your clients whether they're buyers or sellers.
- Let sellers know what a strong market it has been to sell and it may make sense to sell in the current market.
- Tell buyers they have to be very prepared and ready to buy if they're going to compete in such a strong market.
- Strong pre-approval letter (not just a pre-qualification letter).
- Tight, professional offers.
- Decision making ability - no dilly dallying.

Showing traffic in 3Q16 was similar to that of 3Q15.

SHOWINGS / ACTIVE LISTING - 3Q HOME AND CONDO FOR YCRE. BY PRICE POINT.



Source: Your Castle Real Estate analysis. Based on information from Centralized Showing Service

INVESTOR CHARTS



How much wealth could I generate for my family from our first rental?

Page 47



How has Denver's population grown historically? What is forecasted? Does population growth relate to real estate?

Page 49



How do the demographics of the city impact home purchase and rental trends?

Page 51



What are the trends for construction of new homes and rentals? Are we building too many or not enough?

Page 53



How have the population, demographic and construction trends impacted the rental market? What is likely to happen in the next few years?

Page 55



Has renting become so expensive it's cheaper to buy than rent?

Pages 57-60

How can investors generate wealth with rentals?

- The top left looks at what that client might face if they buy today.
- The bottom left examines how much more their payment might be in a year if...
 - Home prices go up 5%.
 - Interest rates go up 0.5%.
 - Your payment could go up 9% if you wait for a year.
- The right side is a chart depicting...
 - Top: The home value, with 5% annual appreciation.
 - Middle green: the mortgage balance, which is paid off over time.
 - Lower heavy red line: the accumulate equity (“wealth creation”) for the client.

What does it mean for the client?

- The buyer’s 25% down payment of \$25,000 turns into \$133,000, or +530% (pre-tax).
- For many buyers, this gain would be subject to capital gains tax.
- You should have positive cash flow each year and enjoy an annual depreciation write-off. These benefits are not included here. [See your CPA.](#)
- Historically, the stock market (S+P 500) returns around 11% per year before tax or 8% per year after tax.
- If history predicts the future, \$25,000 down payment invested in the stock would be worth \$67,240 (after tax) in 10 years, for a 269% return.

What changed from prior example?

- Purchase price \$100K (rental condo).
- 15 year loan term.
- 25% down vs. 20% down.
- Rate goes up a little (investor loan rates are often higher than owner occupant rates).

There's a 530% ROI if you buy a rental property today. Even though home prices are up about 40% in four years, rents have gone up about the same amount. An investor can still earn great returns today!

ASSUMPTIONS

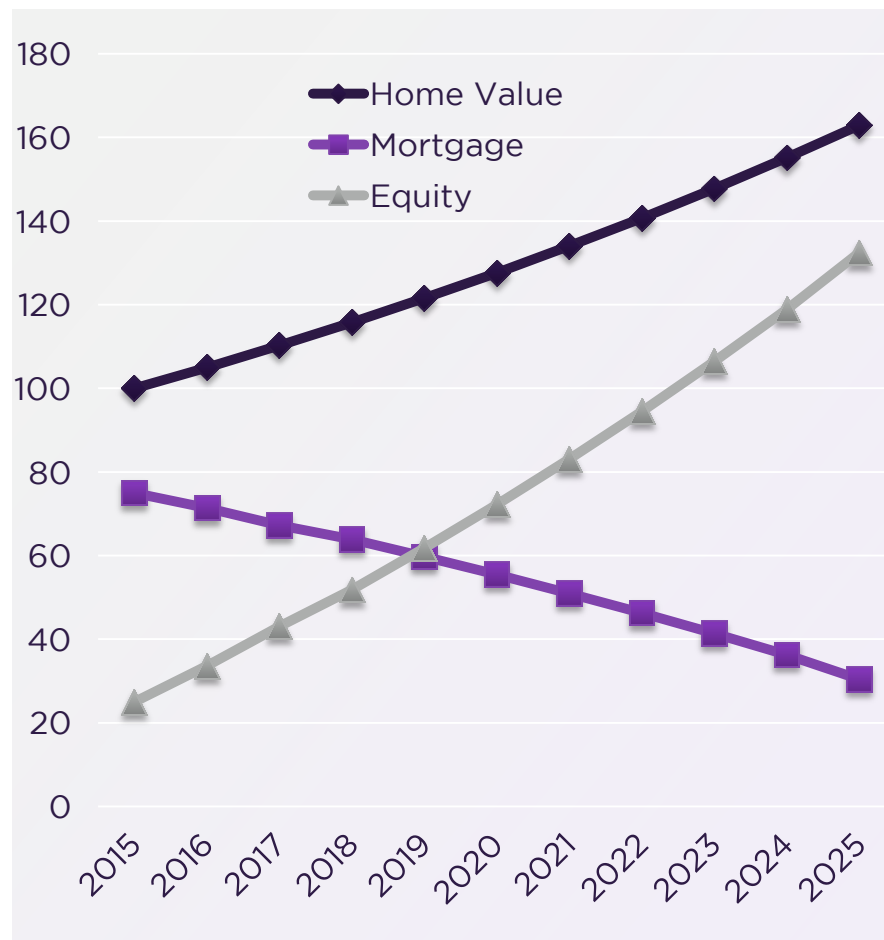
Buy now

- Purchase price: \$100,000
- Down payment %: 25%
- Down payment \$: \$25,000
- Rate: 4.25%
- Amortization: 15 years
- Payment: \$565
- Appreciation %: 5% per year
- Appreciation \$: \$63,000
- Loan pay down: \$45,000
- Simple ROI: 530%

Wait 12 months ("watch market")

- Assume mortgage rates +0.5%
- Assume home appreciation +5%
- Payment in '16: \$615
- Payment change: +9%

PROJECTED HOME CHANGE IN VALUE



Metro Denver is one of the most desirable places to live in the country, that's why so many people are moving here!

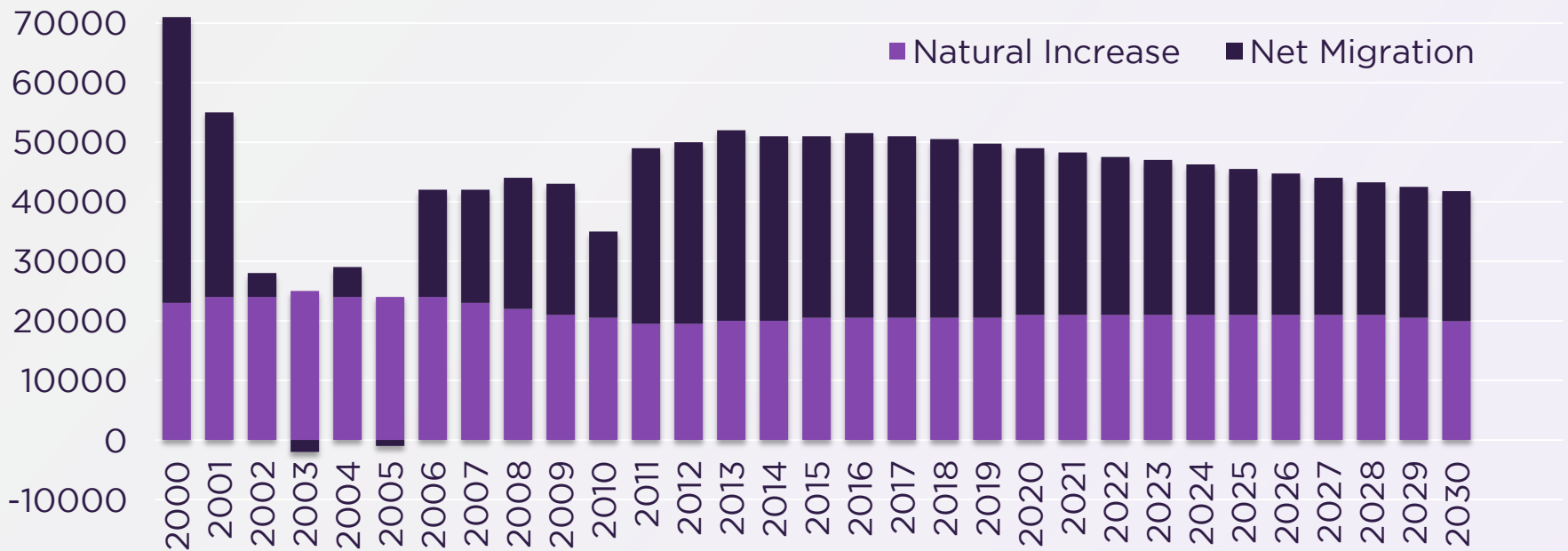
- Metro Denver hit 3,000,000 people in the fall of '14.
- We are expected to increase our population by 50,000/year for the next 10 years. That's a LOT of growth.
- This fact alone will support the housing market and continue to make the demand for housing (both rental and purchase) stronger than the supply for years to come.

What does it mean for the client?

- More and more people are moving to the Front Range and they all need to live somewhere.
- Our increasing population should help your nervous buyers breathe easier.
- The demand for property will continue to outstrip the supply for a long time.

Local economist Patty Silverstein and the Census Bureau expect the Denver population will continue to grow around 50,000 people per year. Where are they going to live?

2015 POPULATION - 3.05 MILLION



Source: Colorado Division of Local Government, State Demography Office.

The Millennial population is a very large group of metro Denver residents and it will affect our housing market.

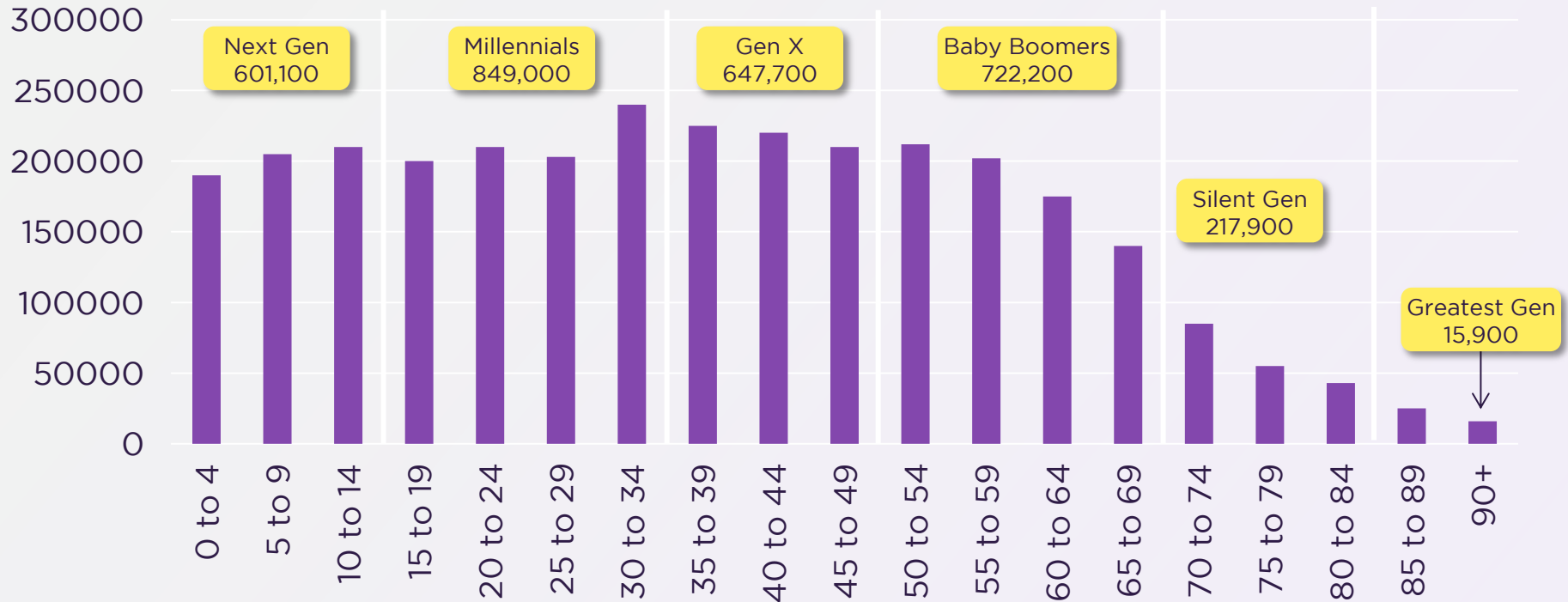
- There are 849,000 millennials in metro Denver and 36% of them still live with their parents.
- As the economy continues to improve and the large population of millennials gets older they will begin moving out of their parents homes and begin renting and purchasing property en masse.
- This movement will put additional pressure on both the rental market and the housing market over the next few years, continuing to strengthen both markets.
- Expect both rents and home prices to keep rising for at least the next few years.

What does it mean for the client?

- The Millennial generation demand for housing will be very strong in the future as they grow up and move out of their parents' homes.
- This is one of three major factors that suggest our housing market is going to stay strong for the foreseeable future.

The population of metro Denver will grow from 3.0 million (2015) to 3.5 million (2025). Millennials continue to be the biggest group. About 30% of Millennials currently live with parents. This will drive a lot of household growth as they move out.

METRO DENVER POPULATION 2015 = 3.05 MILLION



Source: Colorado Division of Local Government, State Demography Office

Construction has picked back up since the downturn but is still not meeting the current demand for housing.

- This chart shows the total permits pulled in metro Denver per year since 1992.
- The blue line is the number of for sale permits pulled.
- The red line is the number of for lease permits pulled.
- Permits peaked in the late 90's – early 2000's, then plummeted during the downturn starting in 2006. They bottomed out in 2009.
- Since then construction has returned, but notice it's mostly for lease construction (rentals) not for sale construction (homes and condos).
- Currently, more than half of all permits pulled are for lease units (apartments).
- The result is that there is not much home and condo construction taking place in metro Denver; not nearly enough to meet the huge demand for housing.

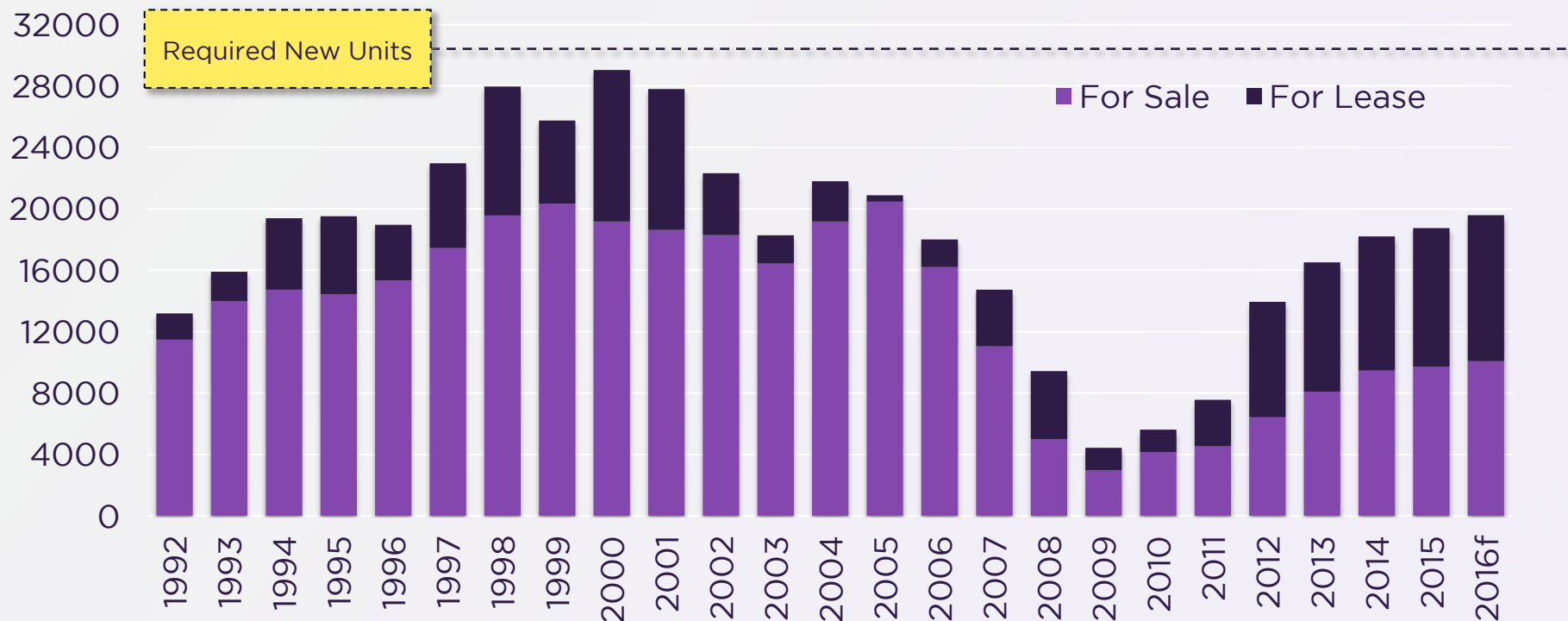
What does it mean for the client?

- Your clients shouldn't wait for a housing construction boom to level out the market if they're looking to buy a home.
- Because of the lack of for sale construction, demand for housing is going to outweigh supply for years to come.

Local economist Patty Silverstein estimates 16,000 units were permitted in 2014 and 18,000 units in 2015. That’s for rental (top bar, in yellow) and for sale (blue bar).

- 31,000 new units per year (10,000 rental, 21,000 for sale) required to keep pace with 50,000 new residents per year.

APPROVED PERMITS



Source(s): The Genesis Group, Home Builder’s Association of Metropolitan Denver
 Note: Seven County Metro Denver includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas and Jefferson Counties

Comparing historic rental rates with vacancy rates.

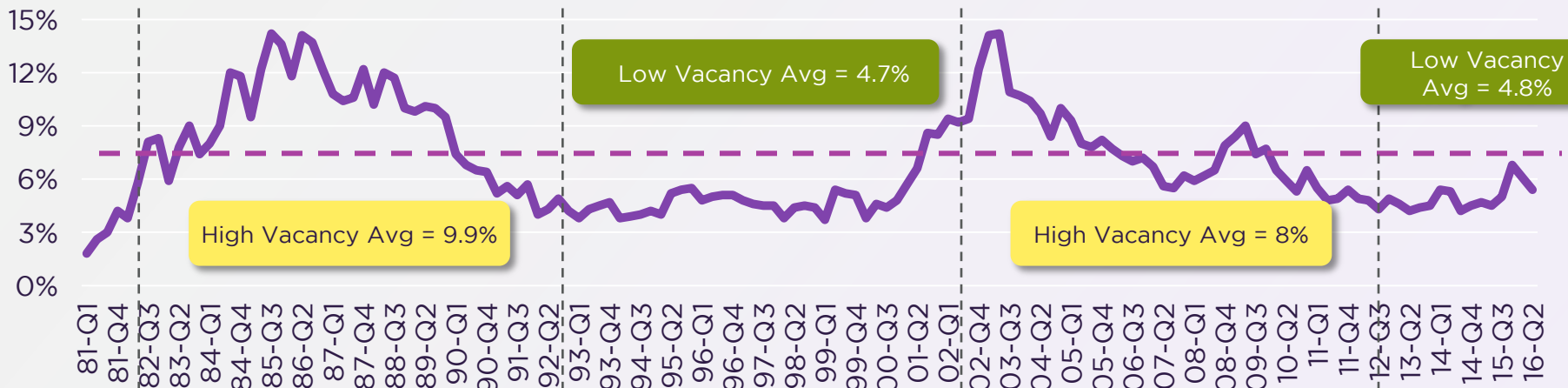
- This chart shows the correlation between rental vacancy rate and median rent in metro Denver since '81.
- Not surprisingly, when vacancy rates are high, rents stall and vice versa.
- During the 80's vacancy rates were high and rent growth was very slow.
- During the 90's vacancy rates were low and rent growth was very strong.
- During the 2000's vacancy rates skyrocketed in the first few years and rent growth was very slow.
- Since then vacancy rates have mostly fallen (except in 2010) and rents have risen.
- Today's ultra low vacancy rate has led to massive rental increases – rents have risen over 30% in the past 3 years.
- Long term buy and hold investors are taking advantage of this trend by buying more rental properties.

What does it mean for the client?

- Renters are suffering through the strongest rental increases in metro Denver history.
- Because of the lack of rental unit construction, this dynamic is not expected to change for years.
- This is causing many renters to take the plunge and purchase a home, further increasing the demand for homes.
- Low interest rates make home ownership (as compared to renting!) relatively affordable.
- The ones who are in a better position are landlords and home sellers.

When Denver rental vacancy is below 6%, we experience rent growth. 1981-2014 average rent growth: 4%. (Apartment data only)

VACANCY RATE BY QUARTER %



MEDIAN RENT BY QUARTER (\$)



Source: Apartment Association of Metro Denver Note: DSF = Detached Single Family Home

“How long will the market stay like this?”

There are three reasons why we don't have much inventory, and while we'll continue to be short of inventory for the next 3-5 years:

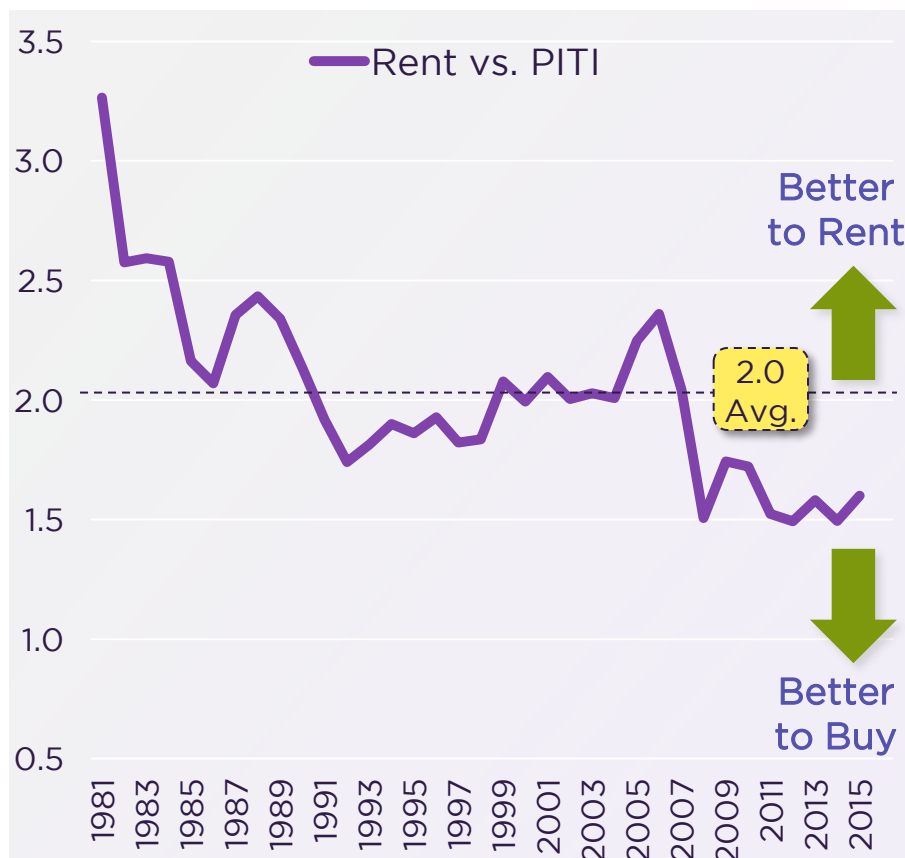
- Denver has historically grown by 50,000 people a year.
 - The Census Bureau expects that rate of growth to continue for at least another decade.
 - Denver metro will grow from 3.0 today to 3.5 million by 2025.
- Millennials are the biggest generational group in Denver – 850,000 people!
 - Over 300,000 of them live with their parents and want their own place.
 - This is a huge segment of pent-up demand.
 - By comparison, we sell around 50,000 homes in Denver each year.
- We need to add 11,000 rental units and 21,000 for-sale units each year to keep pace with all of this market demand.
 - In 2016, we'll only add 9-10,000 rentals and sell 11-12,000 new homes. 2017 will be slightly higher.
 - Builders can't even come close to keeping up.
 - Land is scarce, water is expensive, and there's a skilled labor shortage.
 - Many building materials have gone up in price quite a bit, too.
 - Local governments that issue building permits are swamped.

As a result, the tight inventory for homes and rental properties will continue, even as interest rates increase.

- Home prices will continue to increase above their historical rate of 6% per year.
- Rents will keep increasing faster than their historical 4% annual inflation.

This is an affordability index comparing the average Denver home PITI vs. the average rent. It's about as cheap to buy as it has been in 35 years.

AVERAGE DENVER METRO HOME PITI (NOT CONDOS) VS. AVERAGE RENT



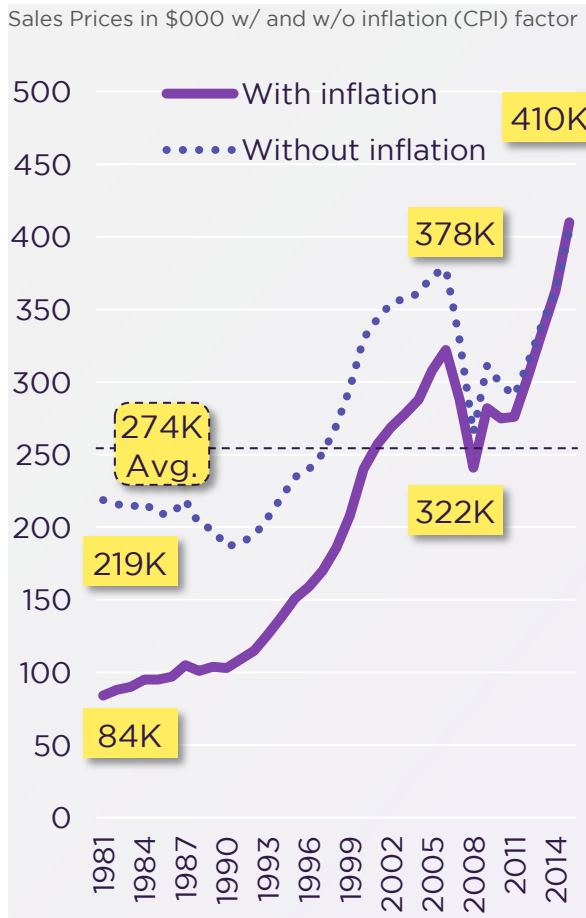
OBSERVATIONS

- In 2015, the average Denver Home price (no condos) was \$404,000.
- With 5% down payment and a 3.8% mortgage rate, \$850 for taxes and \$600 for insurance, that's a PITI of \$1905 / month.
- The average rent (apartments only) in Denver was \$1,168 in 2015.
- The average PITI (\$1905) / the average rent (\$1,168) = 1.6 (our affordability index).
- The relative affordability to buy vs. rent has essentially been unchanged for eight years.
- Historically, it's about as good a time as it has been in 35 years. Much better than buying in 1981!!!!

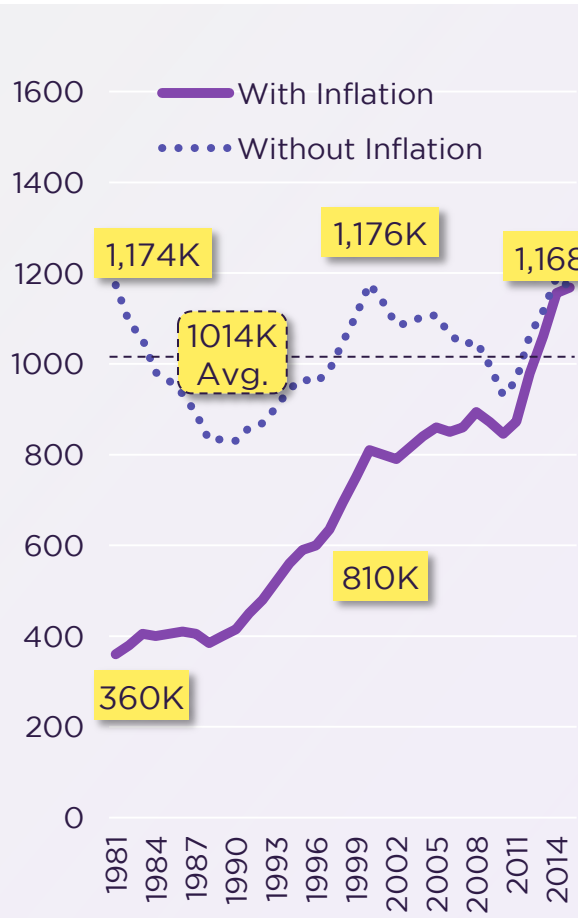
Source(s): Your Castle Real Estate analysis. Based on information from REcolorado®, Inc. And the Apartment Assoc of Metro Denver

If you adjust for inflation, both home prices and rents are at historical high levels, but are not at unprecedented levels.

DENVER METRO HOME PRICES (NOT CONDOS)



DENVER AVERAGE RENT (ALL APARTMENTS)



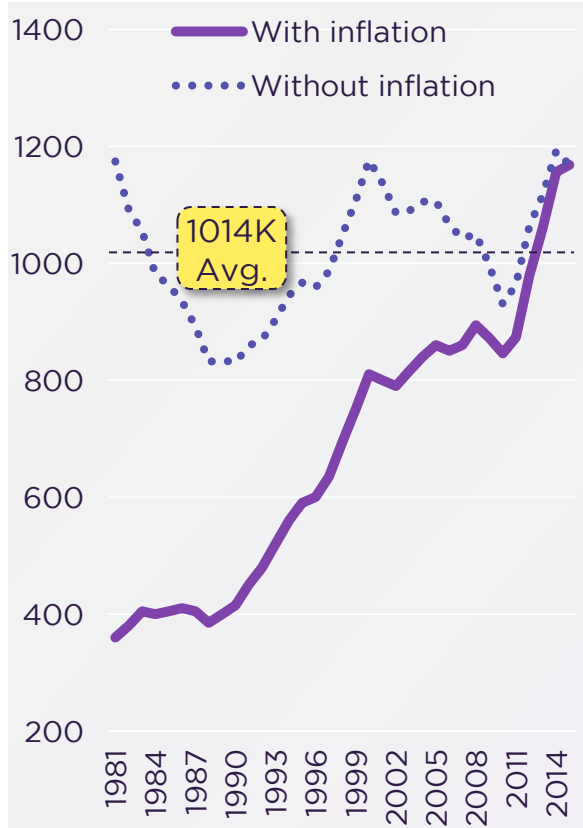
OBSERVATIONS

- After inflation, home prices peaked in 2006, and just recently hit a new high
- After inflation, rents were essentially the same in 1981, 1999 and 2015.
- Historically speaking, when you adjust for inflation, the recent run-up in rents and home prices is not noteworthy.

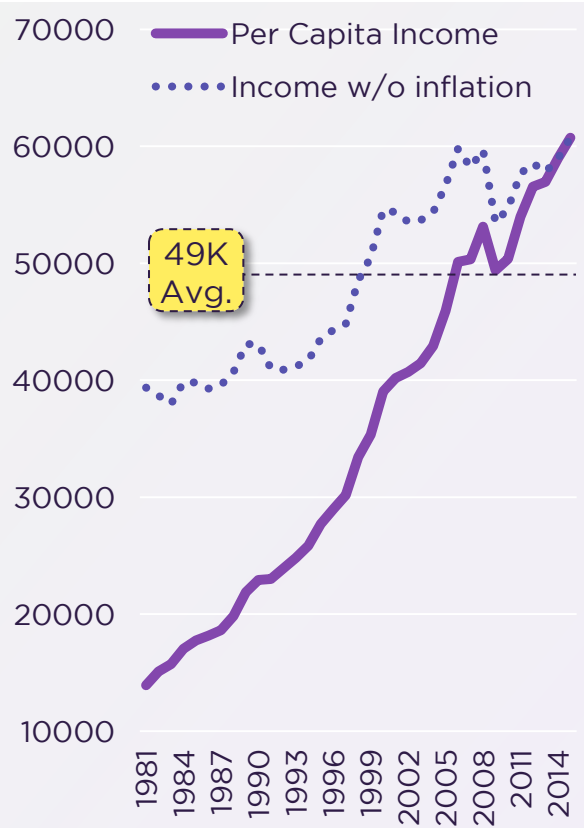
Source(s): Your Castle Real Estate analysis. Based on information from REcolorado®, Inc. And the Apartment Assoc of Metro Denver

Average apartment rent relative to average Denver per capita income is currently at 23%. The 35 year average is 24%. Rents are more expensive relative to income than they were in 2005-2013, when at historically very low levels. They are now near the historical norm.

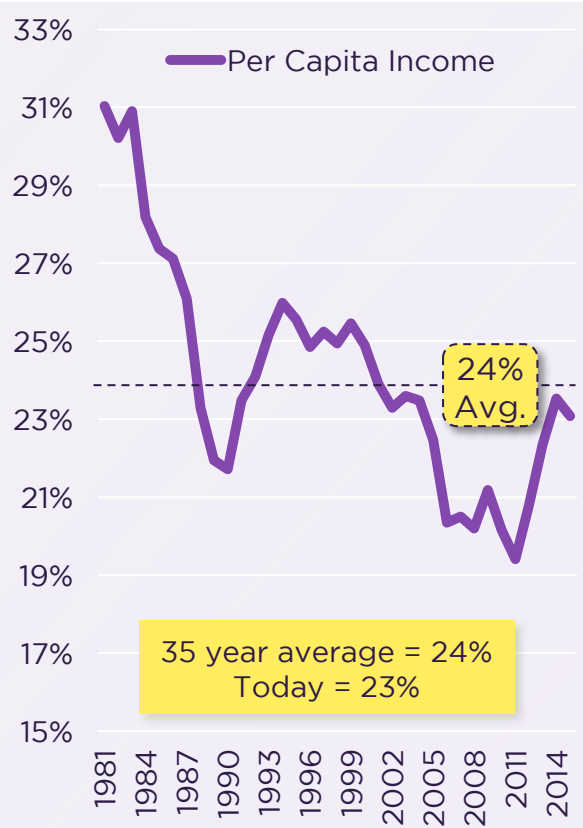
DENVER AVERAGE RENT (ALL APARTMENTS)



DENVER PER CAPITA INCOME (ANNUAL)



RENT AS % PER CAPITA INCOME

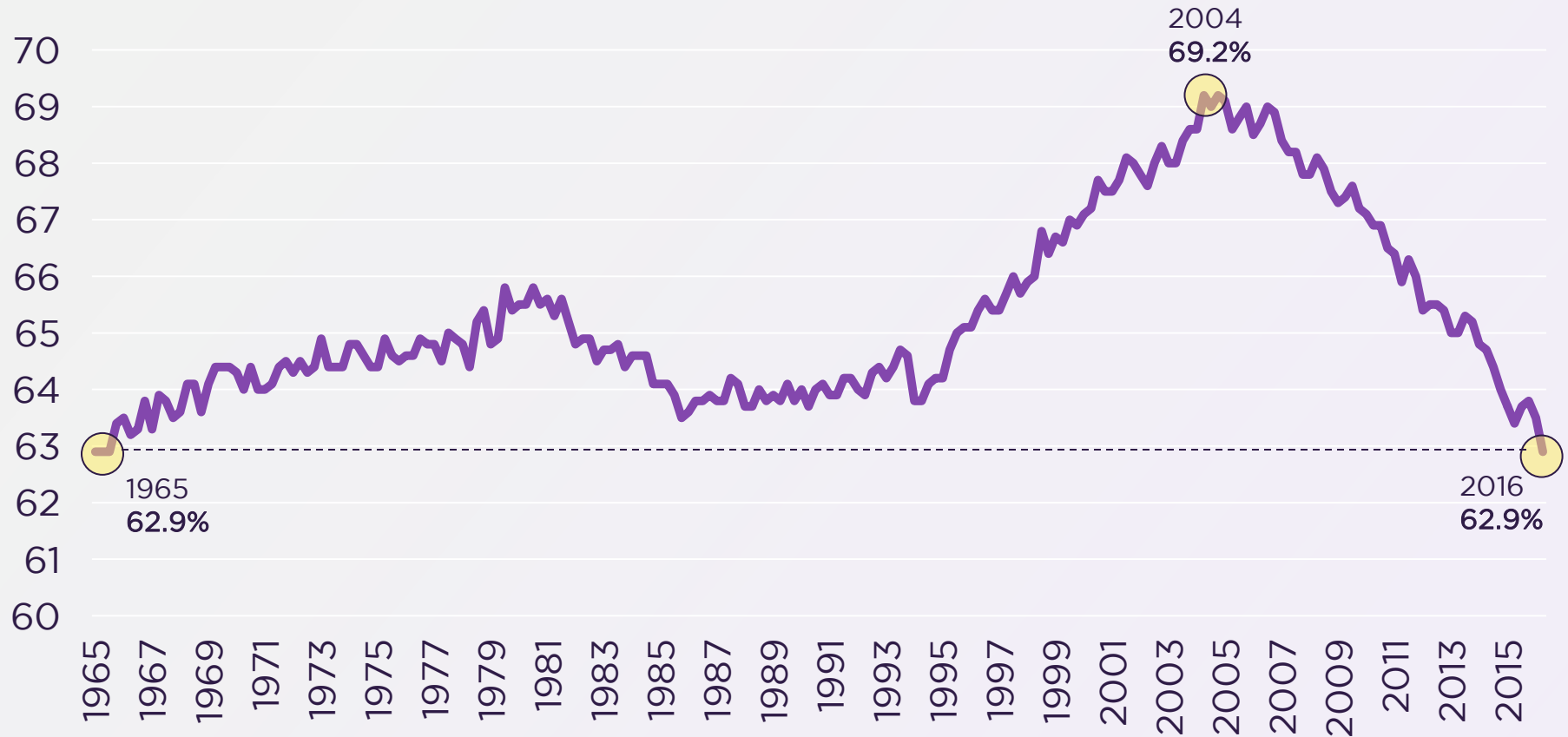


Source(s): Your Castle Real Estate analysis. Based on information from REcolorado®, Inc. And the Apartment Assoc of Metro Denver

U.S. homeownership rates have dropped as more Americans turn to rentals

QUARTERLY HOMEOWNERSHIP TREND (1965-2016)

% Of homeownership



Data Source: UC Census Bureau

FUTURE PROJECTIONS



How has inflation behaved over the past 45 years?

Page 65



Have Denver home prices grown faster than inflation?
Is real estate a good investment when inflation is increasing?

Page 67

Inflation has been trending down over time.

- Over decades, inflation has a powerful effect on all sorts of prices, including housing.
- CPI = Consumer Price Index. It is a common government metric for inflation.
- The biggest component of CPI is housing costs.
- So by default, CPI and home prices are closely linked.
- The red line shows you the change in CPI since 1970. This is a single year measure, so it jumps around a lot (has a lot of volatility).
- The green line is the same data, but it's a rolling three year average. It smooths out some of the jumping and makes it a little easier to see the trend.

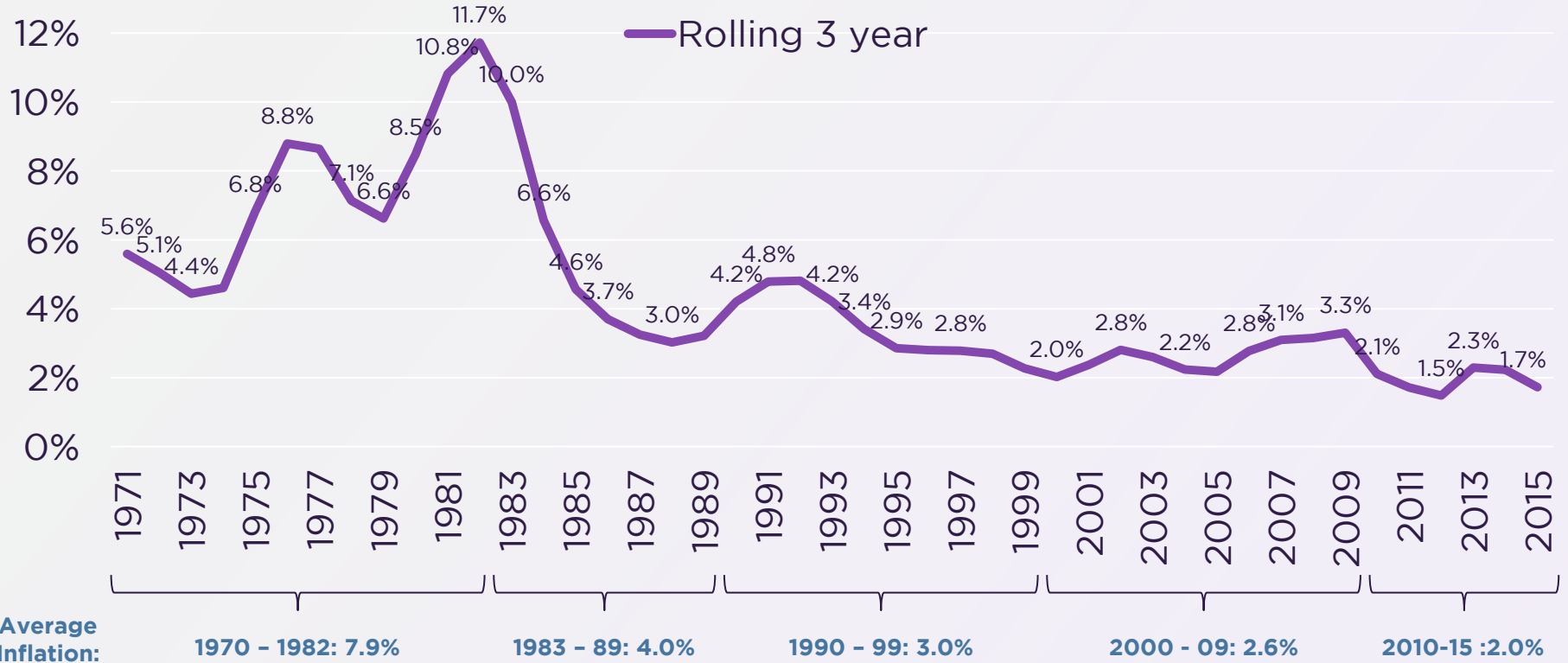
- The average rate of inflation from 1970 to current has been 4.3% per year.
- However, this is somewhat distorted by the extraordinarily high inflation in the 1970's.
- Inflation has been on a remarkable downward trend for thirty years.

What does it mean for the client?

- One possible estimate for “normal” inflation is from 1980 to current. That was 2.8% per year.
- That includes several market cycles (recession, expansion).
- You might forecast future inflation to be in the 2-3% per year range.
- For this presentation, we'll use 3% per year.
- Of course, that is a guess and your actual results will vary.

Over the course of decades, inflation has quite an impact on prices. Since 1970, the average rate of inflation has been 4.3% per year. It varies a lot by decade. If you exclude the high-inflation 1970's, the average for 1980-2014 is 2.8% per year.

**US CPI (CONSUMER PRICE INDEX)
CHANGE IN INFLATION RATE, ANNUAL AND ROLLING THREE YEARS**



Inflation and Denver home prices.

- If you take out inflation, Denver home prices have grown 1.9% annually since 1971.
- The rate of appreciation does have some volatility from one decade to another.

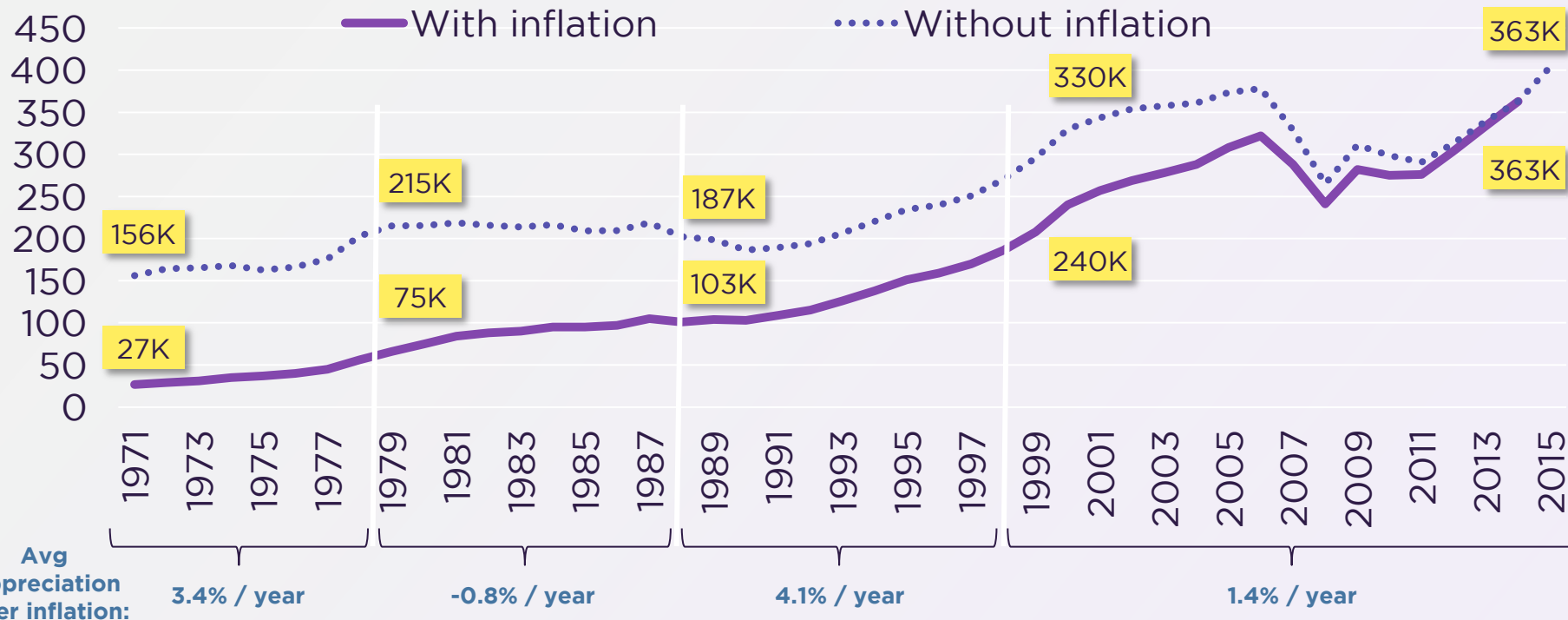
What does it mean for the client?

- It's hard to predict future home prices.
- One plausible starting point is about 2.0% appreciation per year after inflation.

Home prices, adjusted for inflation, have grown 1.9% per year in Denver metro since 1971... from \$155,000 (1971) to \$405,000 (2015). If you do not adjust for inflation, home prices grew 6.3% per year... \$27,000 (1971) to \$405,000 (2015).

DENVER METRO (DSF ONLY, NOT CONDOS OR TOWNHOMES)

Sales Prices in \$000



ANATOMY OF A RE MARKET CYCLE



What leading indicators have historically predicted changes in prices?

Page 71



What is the trend for MOI (months of inventory)?

Page 73



Do some neighborhoods have more appreciation than others over the last 20 year period?

Page 75

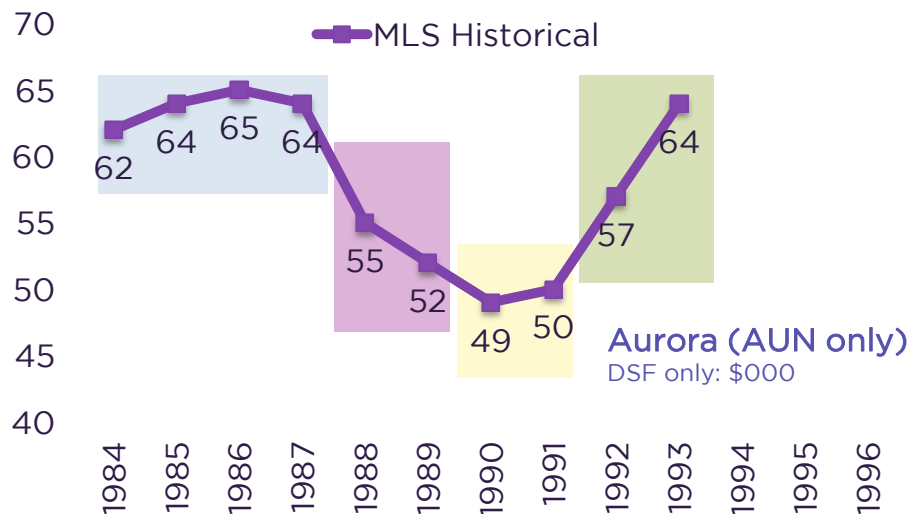
Denver's last two cycles had many common features. This doesn't enable us to predict the future, but it gives insights.

A: Before the Fall

- Prices are appreciating, but at a slowing pace, as the end of the cycle is near.
- Fall is foreshadowed by increasing foreclosure volume (though still at a relatively low level).
- Discounts and Days on market increase as inventory builds.

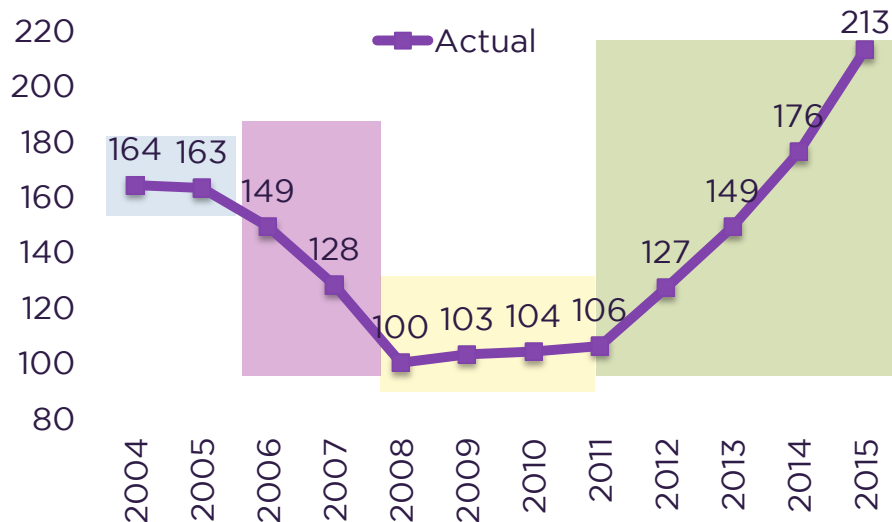
B: The Fall

- Number of foreclosures increases dramatically.
- Low cost distress sales replace regular full price sales; so blended average price decreases quickly.
- Elective sellers in good condition decide to wait or rent their homes, further reducing non-distress sales.
- DOM reaches peak; then inventories fall as owner occupant sellers pull out.



C: The Bottom

- Distress volume peaks and distress pricing hits bottom.
- First time buyers frustrated with lack of move-in ready inventory: pent-up demand.
- F&F'ers start to re-enter.
- Buy and hold investor (land lord) demand outstrips supply; multiple bidding gives a floor to prices.



D: The Recovery

- Foreclosure volume declines.
- Non-distress sellers waiting on sidelines finally re-enter.
- Mix shifts from beat-up to nice homes; prices increase.
- "Show me investors" on sidelines rush in to market, increase market frenzy.
- Number of true "deals" shrinks but newbie investors buy anyway, driving up prices
- F&F activity increases; increasing quality and price of inventory.
- First time buyers finally buy; using up pent-up demand.

The top graph shows metro Denver home prices as well as average yearly appreciation from '71 to present. The bottom graph shows the Months of Inventory for homes in metro Denver from '75 to present.

- Seeing home appreciation and MOI lined up one above the other shows the inverse relationship between the two.
 - Prices rise when demand outstrips supply so MOI falls.
 - Put another way, during periods of high home price increases, MOI is low.
 - Prices fall when supply outstrips demand so MOI rises.
 - Put another way, during periods of low price increases or price drops, MOI is high.
- For example, look at '87 – '90. You see that MOI fell dramatically. As the inventory (supply of homes) fell, it set up the market for home price increases starting about '90 when demand overcame supply, forcing prices upwards.

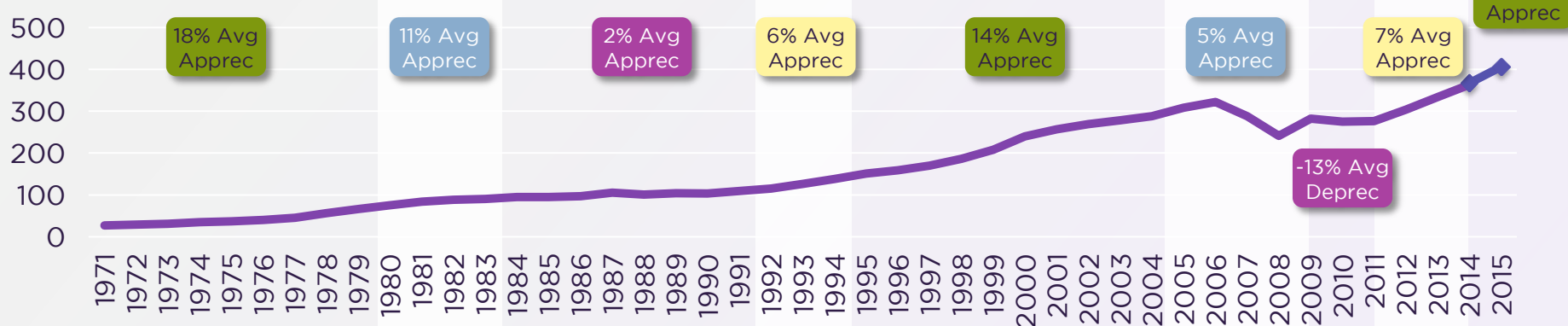
What does it mean for the client?

- It's important for clients to understand that there is long term logic to the market and the law of supply and demand works in real estate.
- It is instructive to realize the connection between the amount of inventory in a market (described in this example by MOI) and prices.
- This doesn't mean you can perfectly predict the real estate market or future home prices. Don't think understanding the economics of real estate makes you (or especially your client) a soothsayer!
- Many speculators have made this mistake much to their disadvantage. But it is helpful and comforting to see that, long term, the real estate market is driven by identifiable market conditions.

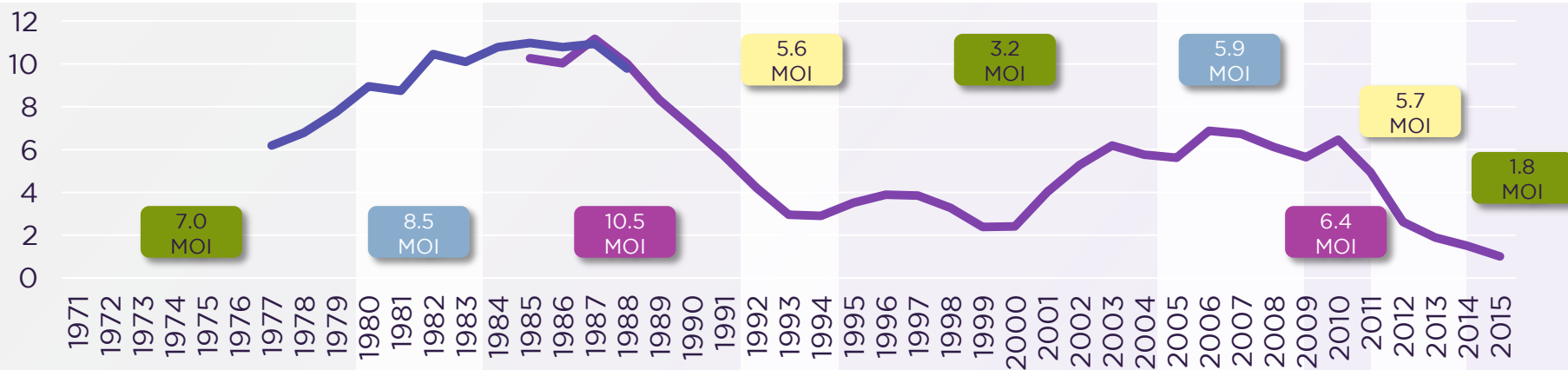
During times of high appreciation, MOI is low. MOI grows for ~3 years (highlighted in green) before a real estate recession starts (highlighted in blue).

DENVER METRO (HOMES ONLY, NOT CONDOS OR TOWNHOMES)

Sales Prices in \$000



MONTHS OF INVENTORY (MOI)



1Q16 update: MOI 1.0

Different neighborhoods endure a downturn in different ways. This chart shows paths of three very different metro Denver neighborhoods during last two market cycles.

- Lower end neighborhood – Aurora North
 - There were wild price swings in this neighborhood during the market cycles.
- Middle income neighborhood – Aurora South
 - There were price swings during the cycles but not nearly as dramatic as in Aurora North.
- Upper end neighborhood – NW Denver
 - Interestingly, when NW Denver wasn't upper end (during the '80s), there was a definite swing in prices during the downturn.
 - But as NW Denver became more expensive and perceived as “higher end”, the result was there was NO drop in prices during the '07 – '09 recession.

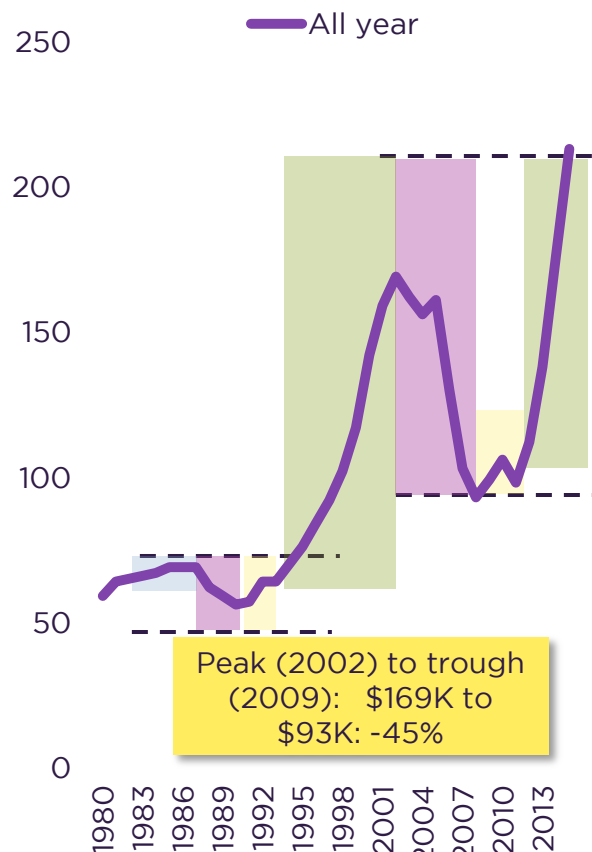
What does it mean for the client?

- Clients care most about the neighborhood they own in or are interested in and different neighborhoods react to market forces differently.
- We have found in metro Denver that many of lower priced neighborhoods had much wilder price swings during the past two market cycles than higher end neighborhoods.

Each neighborhood has a different path through the market cycle. More expensive areas have less volatility. NW Denver appreciated in the downturn. North Aurora was a roller coaster. Moderately priced S Aurora was in the middle.

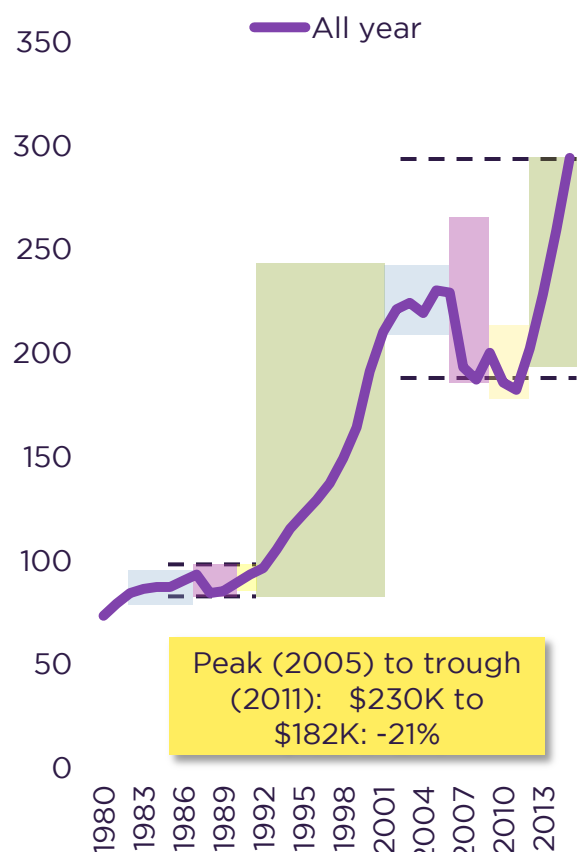
NORTH AURORA HOMES

Prices in \$000



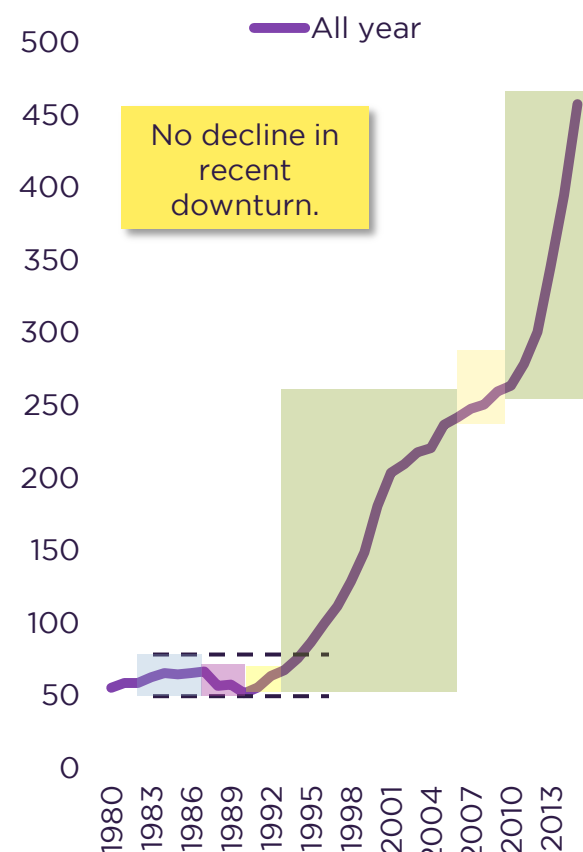
SOUTH AURORA HOMES

Prices in \$000



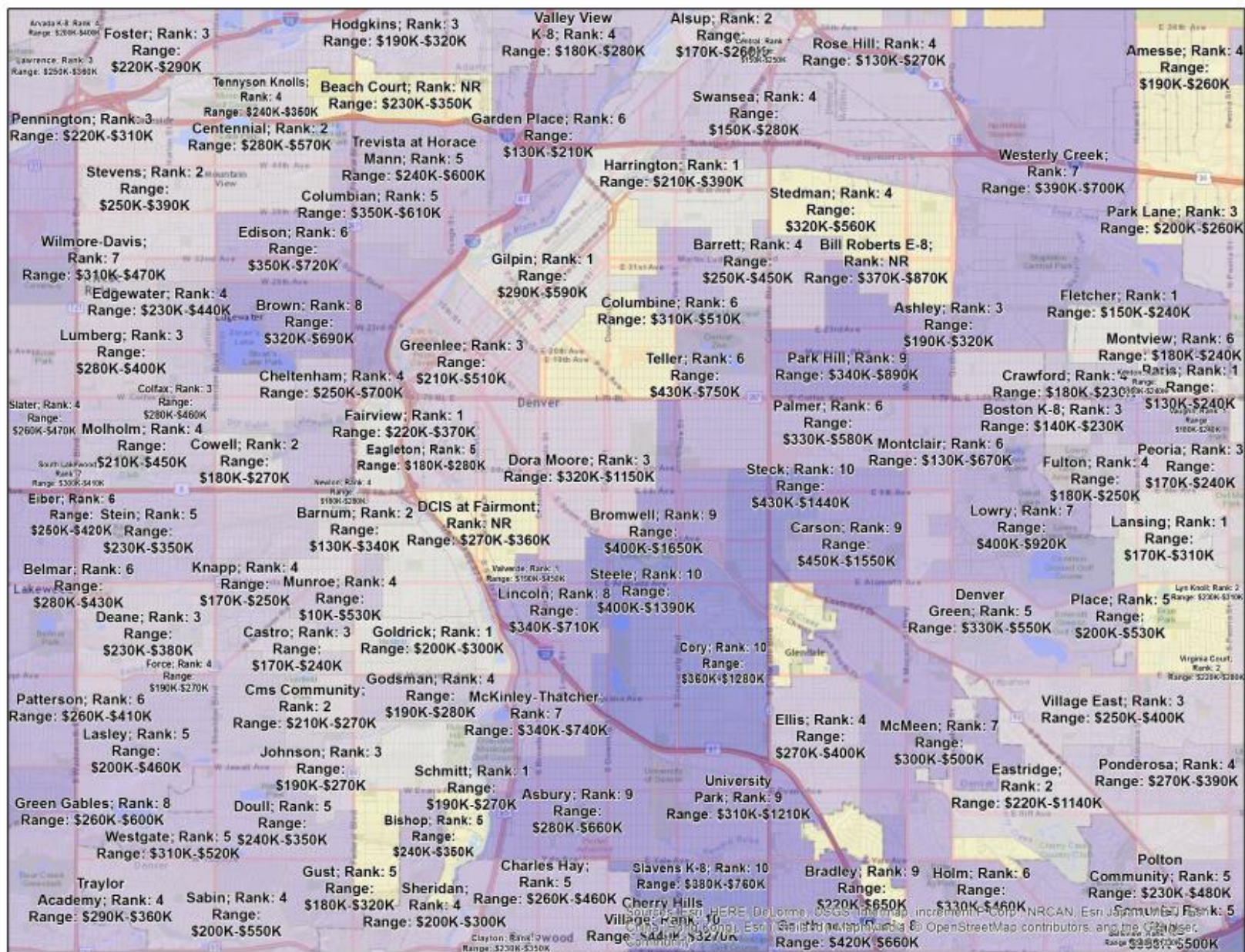
NW DENVER COUNTY HOMES

Prices in \$000



Source(S): Your Castle Real Estate analysis. Based on information from REcolorado®, Inc. And the Apartment Assoc of Metro Denver

SCHOOL PERFORMANCE



Source(s): Your Castle Real Estate analysis. Based on information from REcolorado®, Inc. And GreatSchools.org

Notes from the attorneys...

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