26 September 2023, 10:42PM UTC
Chief Investment Office GWM
Investment Research

Answering six burning questions on US real estate

Real estate markets

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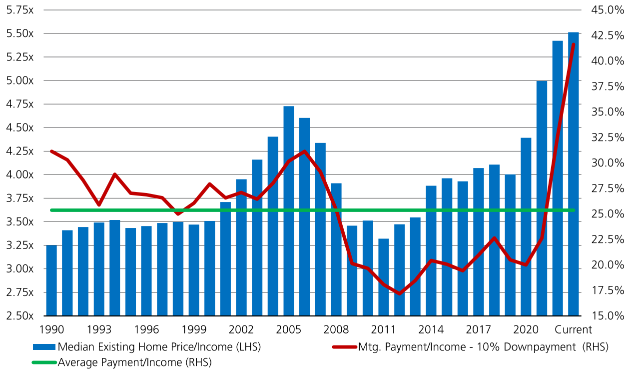
- Housing affordability remains extremely stressed with mortgage rates at multi-decade highs and monthly payments as a percentage of income well above the housing bubble period.
- The dearth of available for-sale inventory combined with severe underbuilding in the years following the global financial crisis and the fact that 61% of outstanding mortgages have a rate below 4% and 80% have a rate below 5% are likely to keep the housing market unbalanced for the foreseeable future.
- The supply/demand imbalance is likely to help keep a floor on home prices. This combined with significantly better mortgage underwriting standards post the global financial crisis will, in our opinion, help prevent a housing crisis similar to the 2008/2009 period.
- Although distress in the commercial real estate market is likely to increase, we believe the plethora of dry powder sitting on the sidelines combined with capital remaining available from banks and the capital markets will help prevent a substantial meltdown in the CRE market.
- Over the next several years we see the best CRE investment opportunities in residential rentals, industrial/warehouse and distressed real estate debt.

Given the sharp upward move in interest rates and the "higher for longer" narrative being espoused by the Federal Reserve, we wanted to address several key questions on the minds of clients pertaining to the US real estate market.

1) What is the impact of affordability concerns with mortgage rates at multi-decade highs?

There are a number of ways to measure affordability. It is important to remember that the majority of homebuyers buy on monthly payment as opposed to price. If we consider monthly payment, we believe the most effective measure of affordability is considering monthly principal and interest payment as a percentage of median household income. As Fig. 1 highlights, the current monthly mortgage payment as a percentage of median household income is approximately 42% or roughly 1,000 bps above the peak of the housing bubble. This data is based on a median existing home price of USD 413,500, a 30-year fixed rate, fully amortizing mortgage at a rate of 7.5% and a 10% down payment.

Fig. 1 - Monthly principal and interest payment as a percentage of median household income — assumes a 10% down payment and 7.5 % mortgate rate

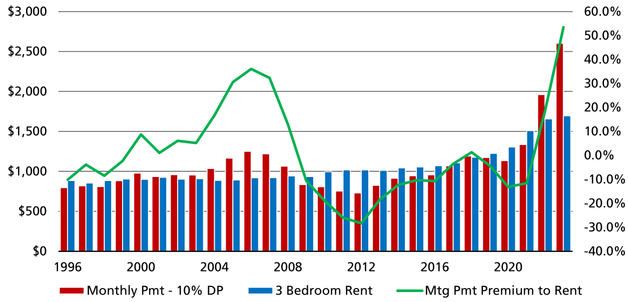


Source: NAR, Freddie Mac, UBS

It is also important to consider the cost of ownership relative to that of renting. As the data in Fig. 2 highlight, the current monthly mortgage premium to the median three bedroom rent in the US is at a 27-year high and well above the peak of the housing bubble. As housing is such a local business, in Fig. 3 we compare the monthly cost of ownership vs. the monthly rent of a three-bedroom apartment in 50 of the largest cities in the US. For the purposes of this analysis, we consider the fully loaded cost of monthly homeownership – that is principal and interest, real estate taxes, homeowner's insurance, maintenance and mortgage insurance (given a 10% down payment assumption).

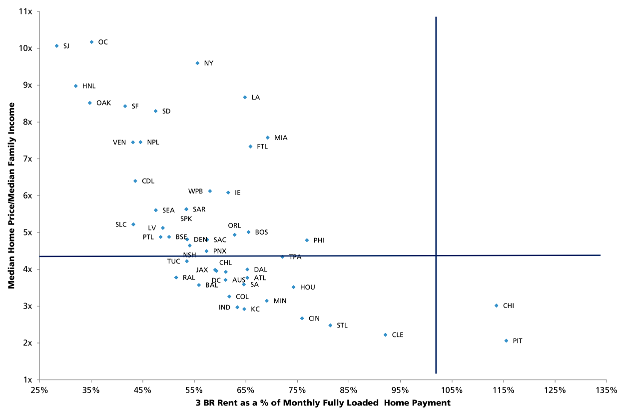
In our view, this provides a more accurate comparison of the true cost of owning vs. renting. As the data in Fig.3 indicate, it is significantly less expensive to rent rather than own in 48 of 50 of the largest markets in the US – and this assumes one has the funds for a down payment and can qualify for a mortgage. In addition, this is prior to the restarting of student loan payments that were suspended during the pandemic.

Fig. 2 - Monthly principal and interest payment premium (discount) to three-bedroom rent — assumes a 10% down payment and 7.5% mortgage rate



Source: NAR, Freddie Mac, CBRE, UBS

Fig.3 - Owning vs. renting for 50 of the largest cities in the US

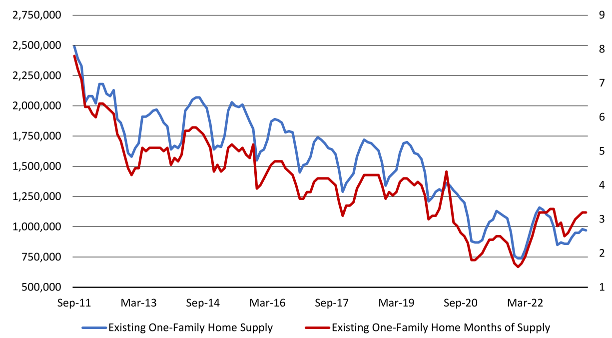


Source: NAR, Haver, Freddie Mac, California Association of Realtors, Honolulu Association of Realtors, CBRE, CoStar, UBS

2) Will supply and demand dynamics in housing balance out anytime soon?

One of the key factors impacting the US housing market over the past several years has been the dearth of available single-family home inventory. Whether measured by absolute units or months of supply (MOS) existing home inventory remains extremely depressed (Fig. 4).

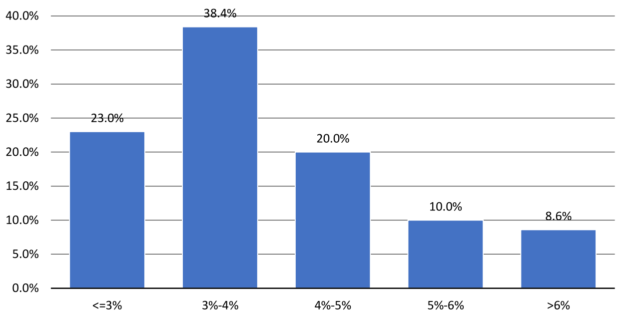
Fig. 4 - Existing single-family home inventory trends through August 2023



Source: NAR, Haver, UBS

One of the key contributors to this dearth of available inventory is the "lock-in effect" of existing home mortgages carrying interest rates significantly below current rates. As the data in Fig. 5 indicates, 61% of existing mortgages have a mortgage rate less than 4% while another 20% have a rate between 4%-5%.

Fig. 5 - Share of outstanding mortgages by interest rate at origination as of 1Q 2023

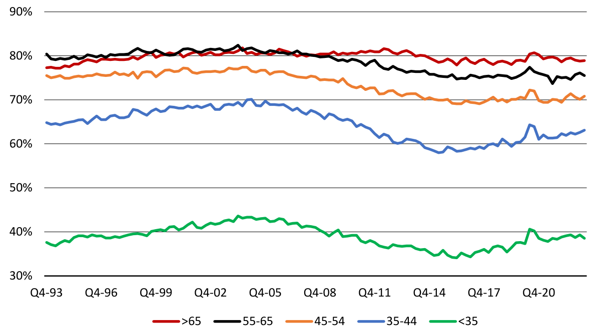


Source: FHFA, UBS

Further exacerbating the supply issue is that only some 2/3 of the 85mn single-family homes in the country have a mortgage – the balance are mortgage free. As such, anyone seeking to move is likely facing substantially higher monthly payments given the significant increase in both home prices and mortgage rates. While the public homebuilders are doing their best to increase the supply of available for-sale homes, the existing home market represents the bulk of annual home sales (85%-90%).

An additional contributor to this lack of supply is the significantly higher homeownership rate among people older than 55 (Fig. 6). It is likely that there is a significantly higher proportion of low to no mortgage debt on homes owned by these households. In addition, there is an increasing trend of aging in place for longer among many households.

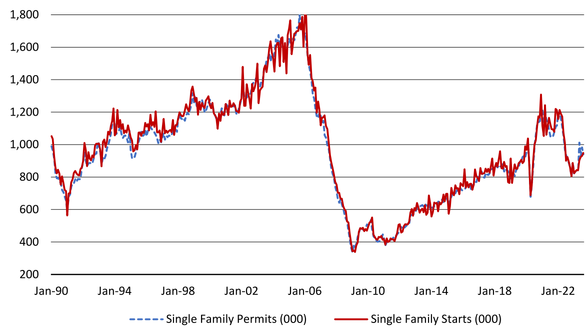
Fig. 6 - US homeownership rate trends by age range



Source: US Census, Haver, UBS

If all that were not enough, there has been a chronic underbuilding of single-family homes in the US following the global financial crisis (Fig. 7). The combination of greater capital discipline among homebuilders, particularly large, public builders and tightening lending standards has resulted in a substantial shortage of single-family homes. As such, it is likely the supply demand/imbalance is likely to remain unfavorable as long as mortgage rates remain elevated.

Fig. 7 - Single-family home supply and construction trends, January 1990-August 2023



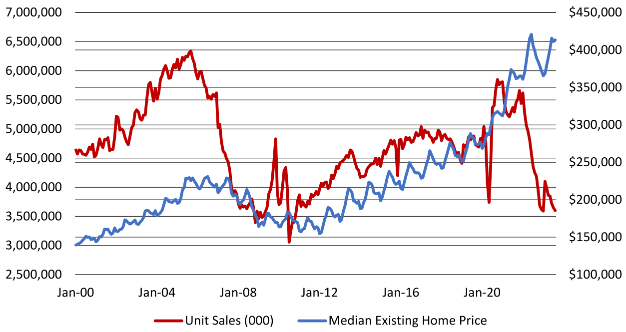
Source: US Census, Haver, UBS

3) Will home prices head higher or lower in 2024?

The challenge in definitively answering this question is the diametrically opposed forces of lack of supply vs extended unaffordability. As can be seen in Fig. 8, existing single-family home prices rose substantially during the pandemic as many people decamped large, dense cities for larger homes in less dense, more affordable areas. The outsized increase in prices combined with the declining affordability referenced in Figs. 1 and 2 has resulted in a substantial decline in existing home sales. The pace of further price appreciation is predicated on a number of factors including, but not limited to, 1) the future direction of mortgage rates, 2) the potential for a recession, 3) a change in lending standards/ policy changes from the Federal Reserve, FHFA and other banking regulators, 4) the level of existing home inventory and 5) the rent/buy calculus.

Based on our outlook for higher-for-longer interest rates and the attendant dearth of available inventory, we believe there is the potential for a modest increase in home prices in 2024. At a minimum we believe the supply/demand fundamentals are likely to help mitigate a significant decline in prices. It is crucial to emphasize that our comments are predicated on a broad, national outlook and local market dynamics could substantially impact the outlook for home prices in a given metro.

Fig. 8 - Existing single-family home unit sales and median price trends – data through August 2023

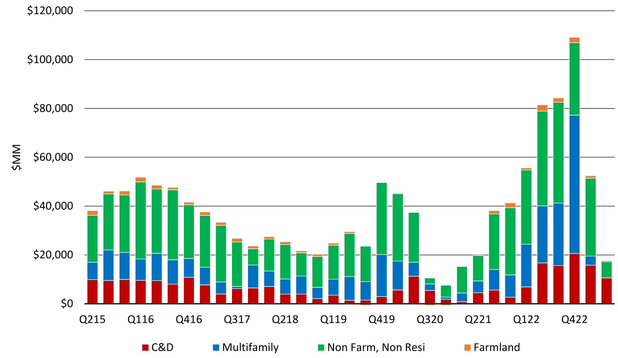


Source: Haver, NAR, UBS

4) Is the worst yet to come for commercial real estate?
Pursuant to the failures of Silicon Valley Bank and Signature Bank earlier in 2023 as well as challenges at several other banks, two of the most frequent headlines that have dominated the media are "commercial real estate is the next shoe to drop" and "this will be a repeat of 2008/2009." We do not dispute that there is likely to be an increase in the amount of distressed CRE debt and properties going forward. Without minimizing the impact of distress on existing investors we believe there are several factors that differentiate the current cycle from the 2008/2009 global financial crisis (GFC).

Bank lending has slowed but has not been shut off. As can be seen in Fig. 9, the pace of lending by banks to CRE has slowed from the torrid pace preceding the Federal Reserve's tightening cycle. However, this marks a key difference from the GFC when banks completely shut off lending and were canceling existing lines of credit. We do not wish to oversell this as much of the bank lending is going to existing relationships. However, as banks account for some 50% of total outstanding CRE loans, this channel remaining open is crucial for the CRE market.

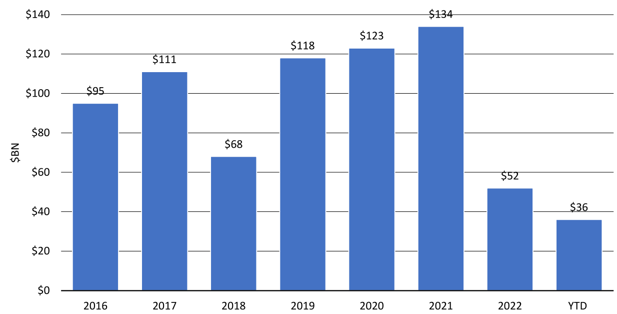
Fig 9 - Quarterly bank CRE lending trends 2Q 2015 – 2Q 2023 - $MM



Source: Federal Reserve, UBS

In addition to bank CRE mortgage lending, the public REITs have been able to access the capital markets, something that was quite different during the global financial crisis when the capital markets were completely shut. Although capital raising is down from 2020/2021 levels (Fig. 10) the fact that REITs can access both equity and unsecured debt is an incremental positive for CRE.

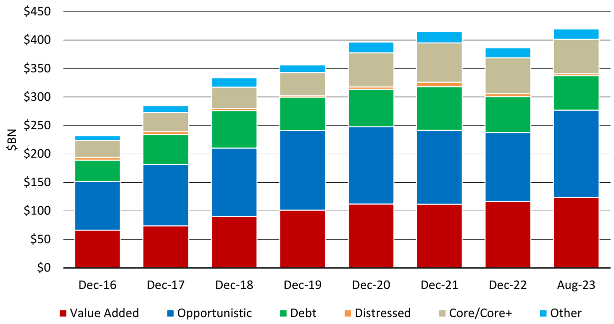
Fig. 10 - Public REIT capital raising activity trends



Source: SNL, NAREIT, UBS

Private equity is currently sitting on USD 420bn of unlevered dry powder with some USD 340bn targeted to CRE debt, distressed, opportunistic and value-add investments (Fig 11). Assuming conservative leverage of 50%, this represents USD 840bn of potential buying power.

Fig. 11 - Private equity CRE dry powder trends segmented by investment strategy - $bn



Source: Preqin, UBS

Digging a bit deeper into the data, the top 10 and 25 funds are currently sitting on dry powder targeted to CRE debt, distressed, opportunistic and value-add investments of USD 72.4bn and USD 92.3bn (41.7% and 53.2%), respectively (Fig. 12). In addition, for the top 10 and 25 funds, this dry powder represents 87.8% and 81% of total assets under management, respectively. In our view, the significant level of dry powder concentrated in the hands of larger funds that have significant operational resources and multiple avenues of capital access will likely be well positioned to transact more aggressively as distressed debt and assets hit the market, thus potentially limiting the downside impact. We should also emphasize that the above figures only pertain to funds targeted to US-based investments.

Fig. 12 - Dry powder distribution for the top 300 private equity firms for investments targeted towards CRE debt, distressed, opportunistic and value-add investments

	Assets Under Management - $MM	Dry Powder $MM	Dry Powder % of AUM	% of Total Dry Powder
Top 10 Funds	$82,367	$72,351	87.8%	41.7%
Top 25 Funds	$113,989	$92,286	81.0%	53.2%
Top 100 Funds	$245,333	$141,633	57.7%	81.6%
Top 300 Funds	$351,147	$173,481	49.4%	100.0%

Source: CoStar, Preqin, UBS

In addition to the funds currently in the market, 294 additional funds have either been announced or are in the process of fund raising. According to data from CoStar and Preqin, these funds are targeting almost USD 111bn in capital. At 50% leverage, this represents and additional USD 220bn in potential buying power assuming all the capital is raised.

5) Could office conversion be an answer to housing supply in big cities?

On its face this appears to be an optimal solution to mitigate two significant problems. However, the reality is likely to be far less encouraging. We are quite cognizant of the challenges of converting office space to residential. Whether it is floor plates that are too large, ceiling heights that are too low (particularly older office buildings), windows that do not open, plumbing that is not conducive to individual apartment units, etc., developers would, in many cases, need to buy the building for land value (or less) to make a conversion economical and earn a reasonable risk-adjusted return. In addition, it is highly likely that developer tax incentives at the local/state level as well as re-zoning and floor-to-area (FAR) adjustments will be necessary to make office-to-residential conversions viable. A number of real estate developers and advisory firms have pegged the conversion potential at 10-15% of existing office stock. It should be emphasized that this will vary significantly by city as building age, zoning rules and tax incentives differ broadly.

6) Where could we see the best opportunities in real estate right now?

Among the more attractive real estate opportunities we see in real estate that we believe will bear fruit over the next several years include:

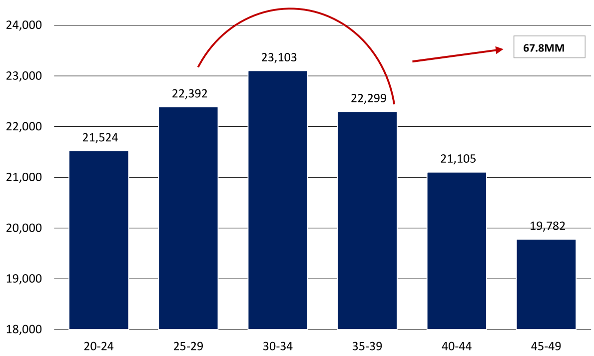
1) Distressed debt - Although we agree that increased distress is highly likely in many parts of the CRE sector, we are reminded of one of the first lessons we were taught in finance 101 – that is distinguishing between operational and financial distress. A sizeable portion of the office market is facing operational distress given hybrid work, smaller office footprints for many tenants, a flight to quality assets and intra-US migratory patterns. As such, investor interest in "catching a falling knife" in order to recapitalize these assets is likely to be low.

Conversely, we believe many CRE assets that are currently facing, or likely to face financial challenges are generally solid assets located in good markets. This is likely to be a source of significant opportunity for all the dry powder on the sidelines discussed previously. Although likely negative for existing investors in these assets, we believe increased distress provides a very attractive risk-adjusted return opportunity for patient capital with a multi-year horizon. In many cases we believe savvy distressed-debt investors can achieve equity-like returns while investing higher up the capital structure.

2) Multifamily – We believe the multifamily (MF) sector has a bright outlook over the next several years largely driven by favorable demographic trends and a housing market that is largely unaffordable (as we discussed previously). The prime rental cohort is between the ages of 25-39. As can be seen

if Fig. 13, that demographic represents 67.8mn people. In addition, as we noted in Fig. 6, the homeownership rate for this age cohort is 30+ percentage points below the national average.

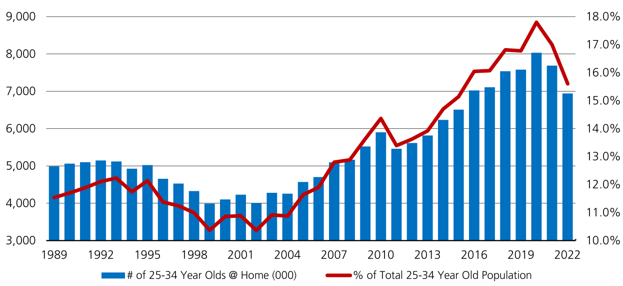
Fig. 13 – US Population segmentation between the ages of 20-49



Source: US Census, UBS

Another interesting demographic factor supporting the MF investment thesis is the 6.9mn people between the ages of 25-34 that are still living at home (Fig. 14). As these people move out of their parent's homes, we believe a significant portion of them will opt to rent, at least initially.

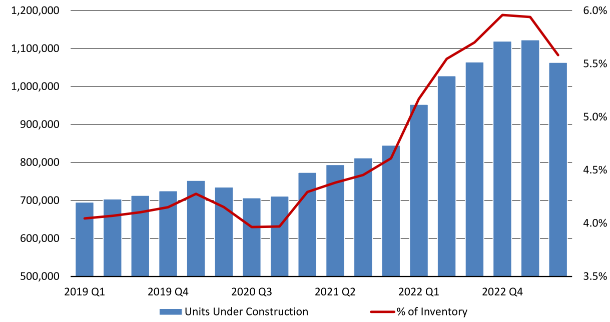
Fig. 14 – Population of 25–34-year-olds that are still living at home



Source: US Census, UBS

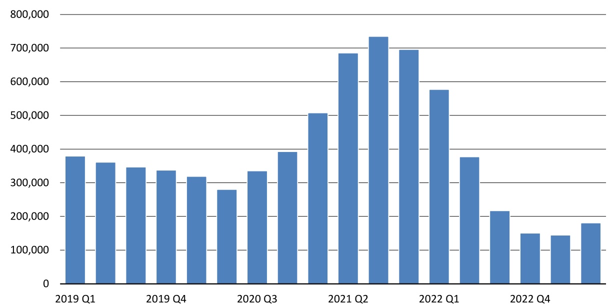
The MF bears will point to the substantial new capacity additions the sector is facing. We are very cognizant of the negative impacts new capacity can have on net effective rent growth and do not wish to minimize the impact it is likely to have. That said, we would make several observations: 1) the number of units under construction has peaked on both an absolute and as a percentage of inventory basis and is already declining (Fig. 15); 2) national absorption trends appear to have stabilized, at least for now (Fig. 16); 3) starts have peaked and are declining (Fig. 17); and 4) the number of permitted units not started as a percentage of total permitted units has increased meaningfully since 1Q 2021 (Fig. 18). Given the very stringent lending standards, particularly for new development as well as the elevated cost of capital for developers, we believe that a significant portion of those permitted units that have not been started may be shelved for quite some time. As such, it is possible that the new supply "tsunami" could be less negatively impactful than currently thought.

Fig. 15 – Multifamily units under construction in absolute units and as a percentage of existing inventory



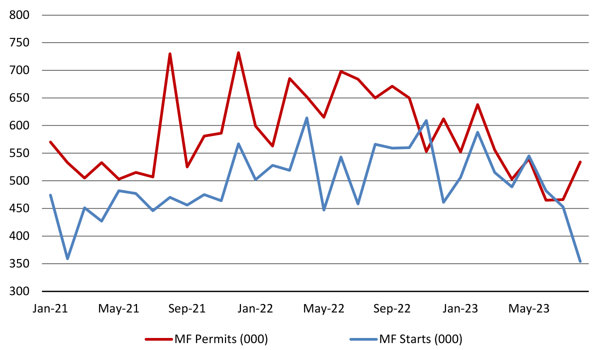
Source: CoStar, UBS

Fig. 16 – National multifamily net absorption trends



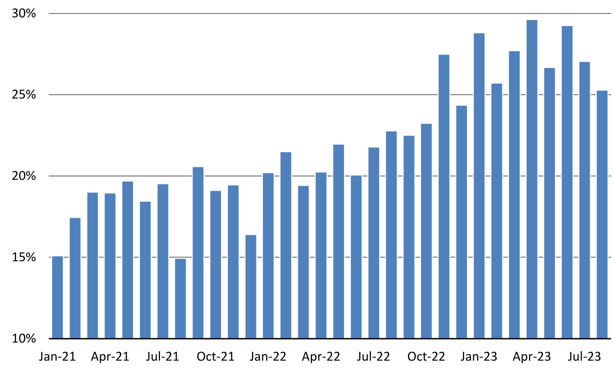
Source: CoStar, UBS

Fig. 17 – Multifamily starts and permit trends



Source: US Census, UBS

Fig. 18 – Permitted multifamily units not yet started

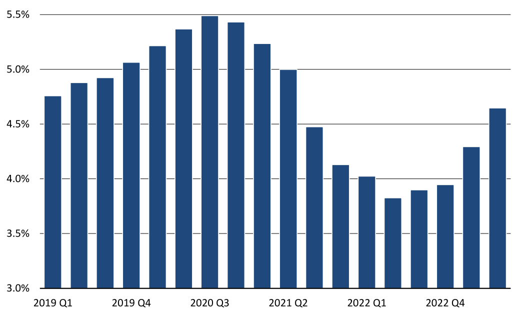


Source: US Census, UBS

3) Industrial/warehouse - Same as it (almost) ever was
Aside from office we believe the most controversial sector among investors coming into 2023 was industrial. This is not because the fundamentals are bad (quite the opposite) but that things could not get any better and would likely soften. We do not disagree that the incredible rent growth the industrial sector has experienced over the past several years cannot go on forever. However, we believe that the sector is much better positioned over the next several years than the bears believe and, in our opinion, the Q2 results from the industrial REITs largely supported our view.

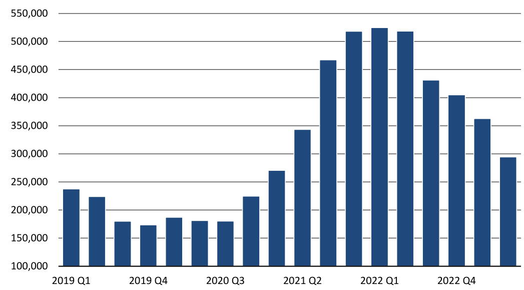
The bears will point to vacancy rates that have increased approximately 100 bps from the all-time lows achieved in 2Q 2022 (Fig. 19) and that absorption rates declined meaningfully from the same point (Fig. 20). In addition, the bears will point to the data in Fig. 21 as supportive of their argument that rental growth rates are slowing.

Fig. 19 – Industrial vacancy rate trends



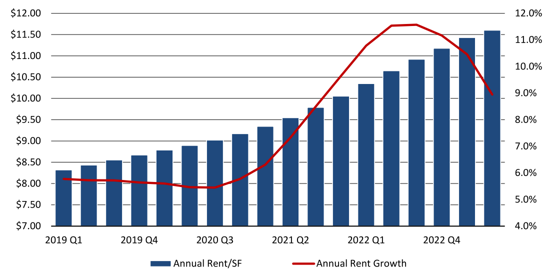
Source: CoStar, UBS

Fig. 20 – Industrial net absorption trends in square feet



Source: CoStar, UBS

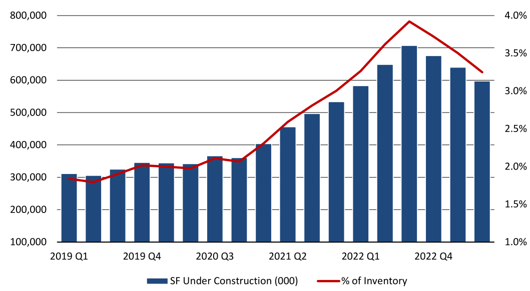
Fig. 21 – Industrial rent/square foot trends



Source: CoStar, UBS

We do not dispute any of these points as they are factual. However, we would make several observations: 1) the peak rent growth rates of some 12% were far above any level the industrial sector ever achieved and came during a unique period driven by the pandemic-induced dislocations; 2) at a current rent growth rate of 9% the sector would still be far ahead of its long-term averages; 3) although it is certainly possible that YOY rent growth rates could decline further, we would point to the data in Fig. 22 which points to a peak in the rate of new supply in 3Q 2022 and the subsequent downward trend in new construction.

Fig. 22 – Industrial new construction in 000 of square feet and as a percentage of existing inventory



Source: CoStar, UBS

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Version C/2023. CIO82652744