

Out with the Inflation, In with the Recession

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Over the past 6 months, the market has shifted away from inflation worries and towards recession. The new uncertainty centers not on whether inflation will be reigned in, rather how much collateral damage will occur in the process. Real estate has historically performed poorly during recessions. Changes in real estate fundamentals and corresponding rent growth expectations will be key determinants on pricing going forward.

Inflation Worries Abate

During 2020 and 2021, the combination of fiscal stimulus in the form of direct payments and supply chain issues heightened investors' inflation worries. These worries drove investors into inflation-friendly assets such as real estate, commodities, and TIPS. TIPS provide an interesting case in that their yields provide real insight into the cost of "inflation insurance." **During 2020 and 2021, investors were so worried about inflation uncertainty that they were willing to lock in a negative real yield for the benefit of inflation protection (exhibit 1).** Put another way, the cost to insure against inflation was expensive.

In March of this year, the Federal Reserve began to shift from accommodative to restrictive monetary policy by ending their open market purchase and raising the target federal funds rate. The labor market had largely recovered from the damage caused by the pandemic shutdowns and inflation became the top economic threat. **Real wages were showing the effects of inflation and had dropped below their pre-pandemic levels (exhibit 2).**

When the Fed began taking action to fight inflation in early 2022, the price of "inflation insurance" plummeted as TIPS yields rose:

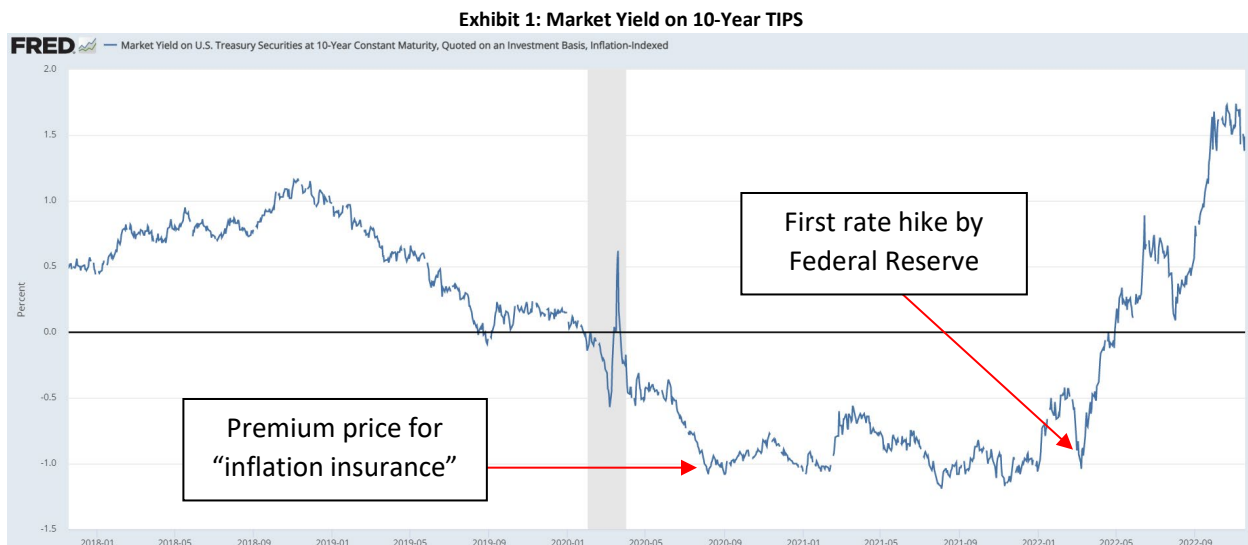


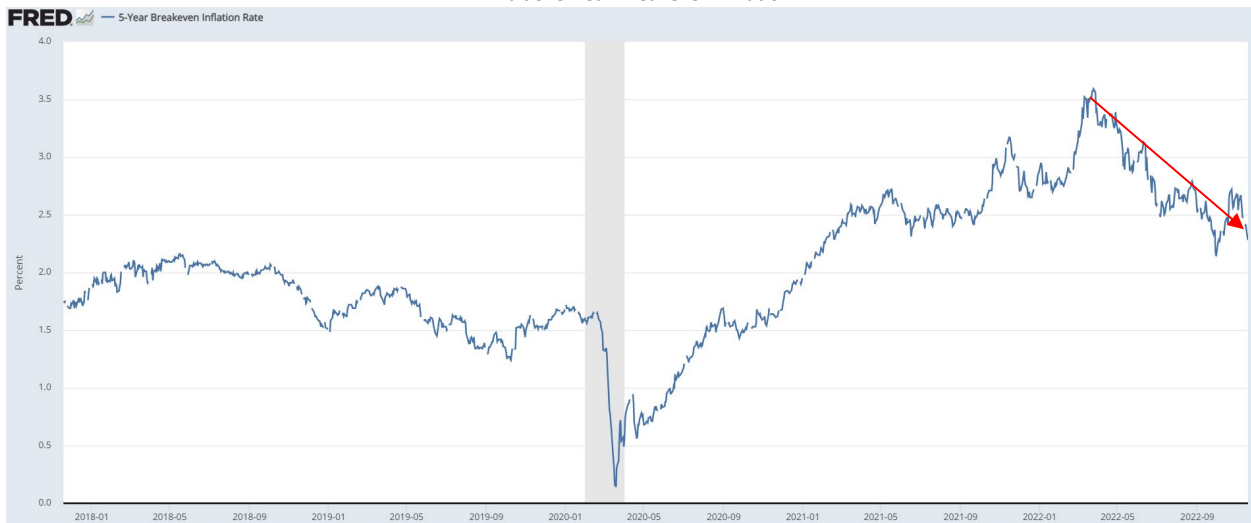
Exhibit 2: Median Real Wages



Real wages dropped below their pre-pandemic level in late 2021 due to high inflation

At the same time TIPS yields rose, the market began to lower its 5-year inflation expectations:

Exhibit 3: 5-Year Breakeven Inflation



5-year implied inflation drops 1% after Fed shifts to restrictive monetary policy

The market’s expectations about inflation clearly shifted as monetary policy implemented more restrictive measures. **For an interesting deep dive, check the appendix for a handful of price indexes in various industries.**

The Market Shifts to Recession Worries

As inflation persisted during the early innings of monetary tightening, the market began to show an increased probability of a recession. Exhibit 4 shows the yield curve inverting in October:

Exhibit 4: 10-Year Minus 3-Month Treasury



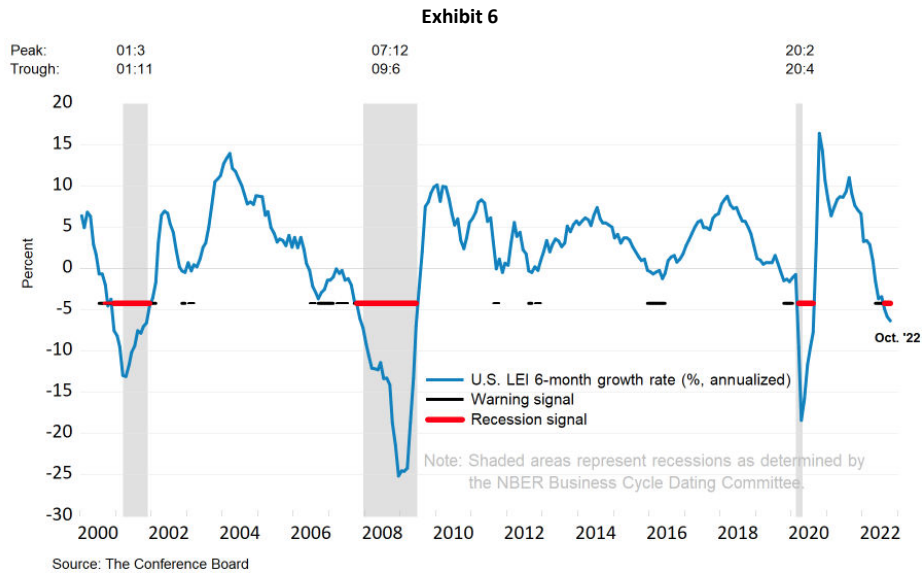
Schroders has an interesting “Recession Dashboard” they publish periodically. They use a 40% threshold as a good predictor of an upcoming recession. As of August, 60% were signaling recession:

Exhibit 5

Schroders Recession Dashboard **Schroders**

Indicator	Signalling recession yes (Y) or no (N)	Typical lead time in signalling recession (months)
Inflationary		
Truck sales	Y	24
Output gap	N	24
Initial jobless claims	Y	23
Capacity utilisation	N	21
Unemployment gap	Y	17
Commodity prices, y/y%	Y	15
Monetary		
Yield curve (10-year minus three-month Treasury bill)	Y	13
Fed funds rate, change over the last two years	Y	12
Fed fund rate relative to cycle low	N	12
Real money base, y/y%	Y	9
Real narrow money supply, y/y%	Y	6
Real broad money supply, y/y%	Y	5
Near-term macro and financial markets		
ISM new orders, six-month change, %	Y	5
Private house permits, y/y%	N	3
S&P 500, six-month return, %	Y	2
ISM new orders	Y	1
VIX index	N	1
Average weekly hours (manufacturing sector), y/y%	N	1
Chicago Fed activity index	N	1
Manufacturing goods new orders, y/y%	N	1
Proportion of indicators signalling recession		60%

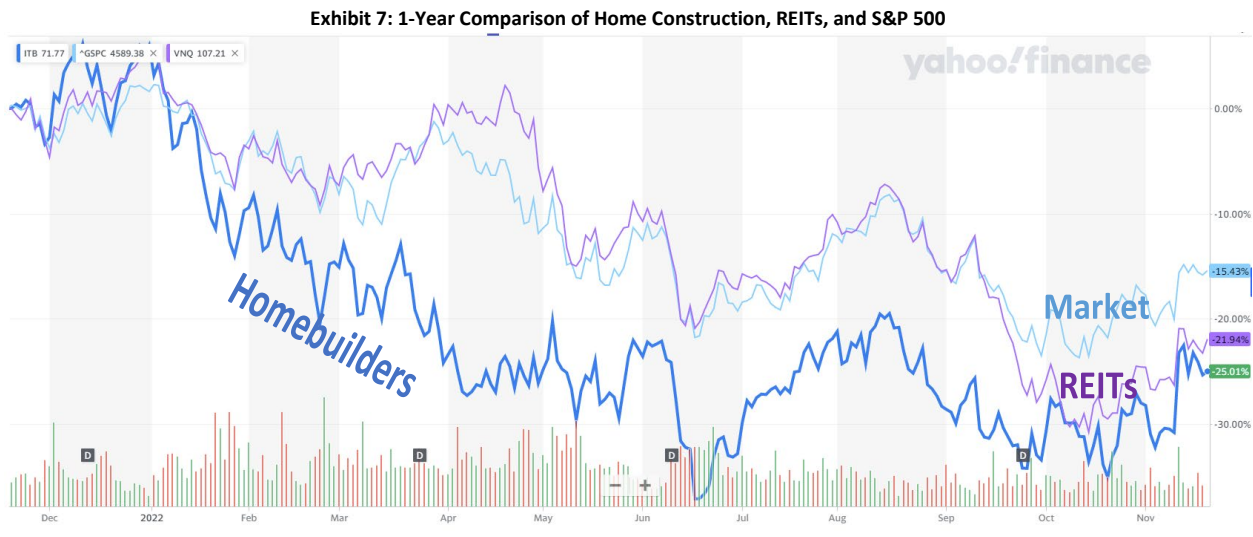
And this from The Conference Board:



Between March and October, the market clearly shifted their expectations away from inflation and towards a heightened recession probability.

The Real Estate Market Reacts

The public market indexes tracking home builders and commercial real estate tell an interesting story on market sentiment. You can see in the graph below that homebuilding decoupled in early 2022 (blue) as the market anticipated the direct effect higher interest rates would have on homebuilders as they dealt with worsening home affordability. However, the commercial market (purple) didn't decouple until about the same time the yield curve inverted (recession worries).



The recent REIT decoupling can be explained by this data published in a recent Pension Real Estate Association (PREA) research insight. Exhibit 8 shows how real estate has performed in different inflation

and GDP growth scenarios. While performance is inconclusive in different inflation quartiles, low GDP growth is clearly a drag on returns.

Exhibit 8

Exhibit 2: Real Estate Returns Under Different Economic Scenarios, 1978 – 2020

	Low GDP Growth (First Quartile)	Medium GDP Growth (Second or Third Quartile)	High GDP Growth (Top Quartile)	Total
Low Inflation (First Quartile)	2.1%	10.6%	16.2%	7.2%
Medium Inflation (Second or Third Quartile)	10.8%	9.1%	11.8%	10.1%
High Inflation (Top Quartile)	3.9%	11.8%	13.2%	9.3%
Total	4.3%	9.9%	12.6%	

Sources: PREA Research, NCREIF, Refinitiv Datastream

Moving to cap rates, there are many cap rate indexes out there but they tell a similar story during the pandemic (this specific data comes from MSCI). Low interest rates have often been attributed to driving cap rates to all time lows in 2021 and early 2022 but that narrative is only half true. As shown below, apartment and industrial cap rates compressed much more than office and retail. And despite interest rates dropping 1.5%, cap rates fell less than 0.5%. Clearly not a 1-to-1 relationship.

Exhibit 9

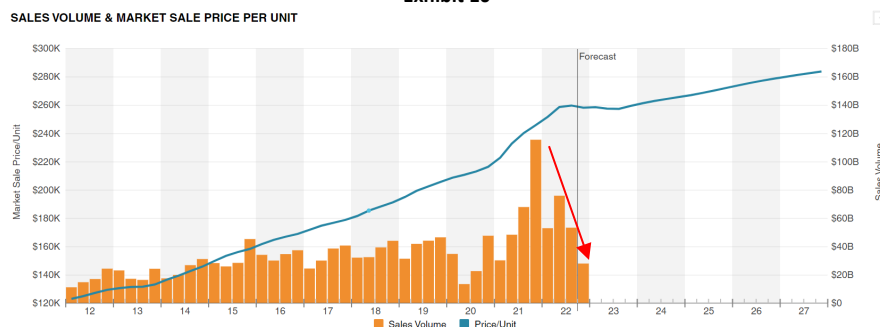
	All Properties	Office	Industrial	Retail	Apartment
2019	5.82%	6.48%	5.91%	6.55%	5.29%
2021	5.48%	6.31%	5.59%	6.44%	4.67%
Difference	0.34%	0.17%	0.32%	0.11%	0.62%

The divergence between property types can be explained by rent growth differences (higher rent growth = lower cap rates). Office and retail rents were relatively flat during the pandemic while Apartment and Industrial rents skyrocketed. **All-time low cap rates during the pandemic can be attributed as much to rent growth as they can to interest rates.**

Looking Forward

Much of the focus in the real estate market today is trying to determine where pricing is today, and where it will land once the monetary dust has settled. One of the challenges in private markets is uncertainty creates large bid-ask spreads resulting in lower transaction volume:

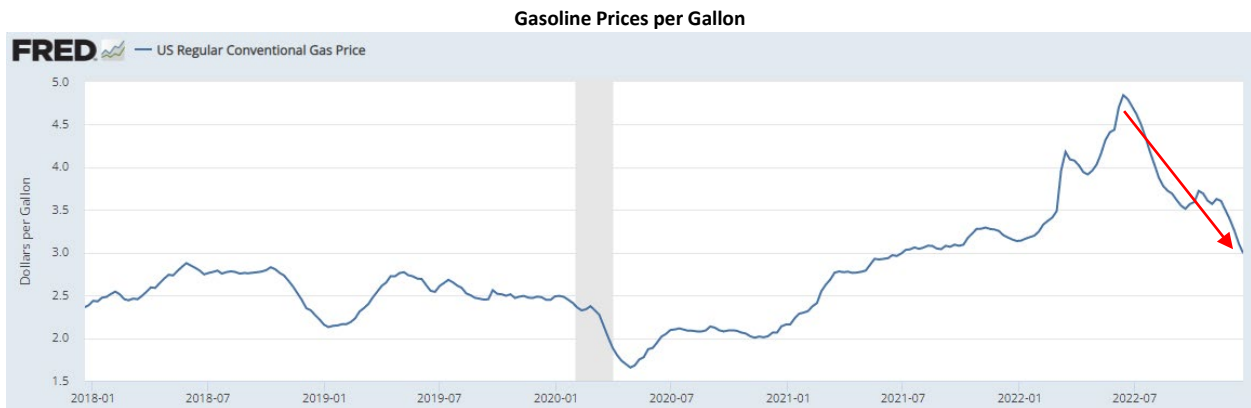
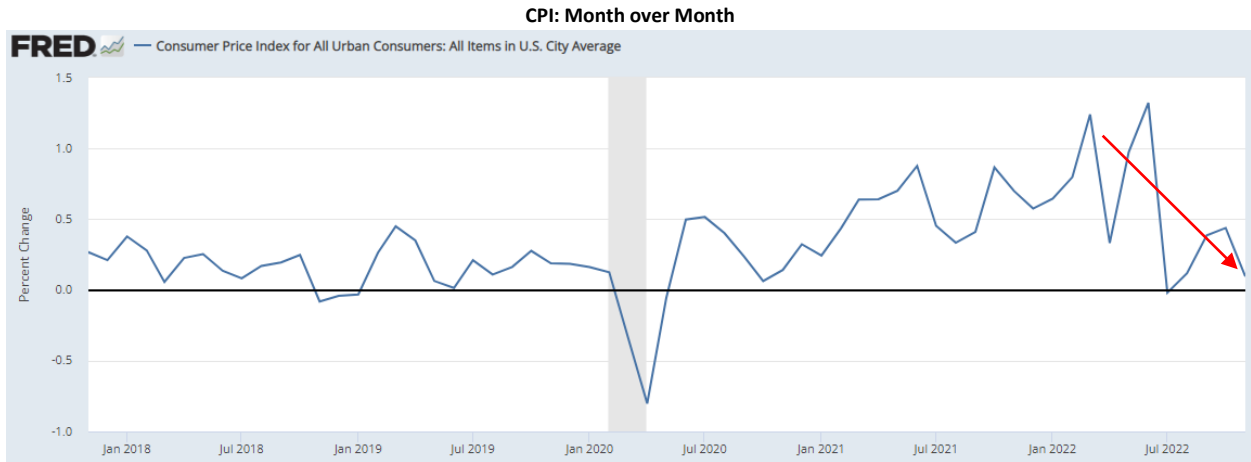
Exhibit 10

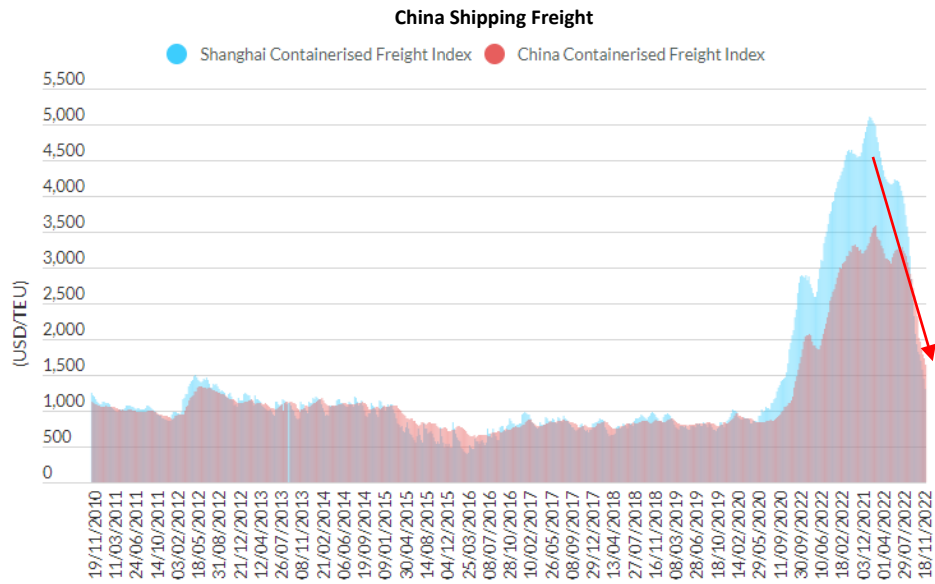
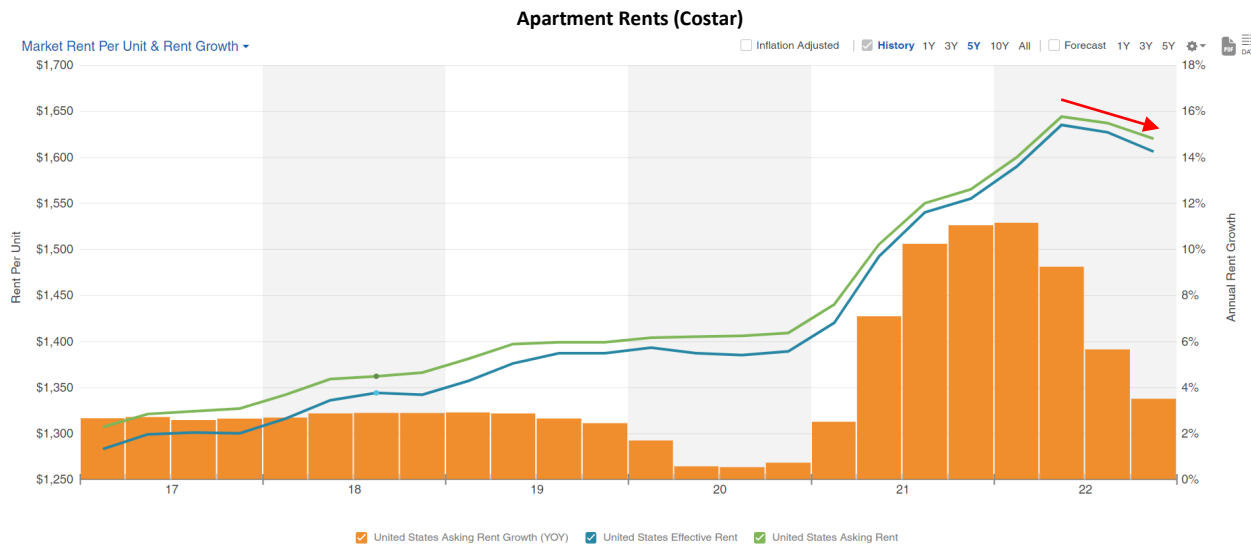
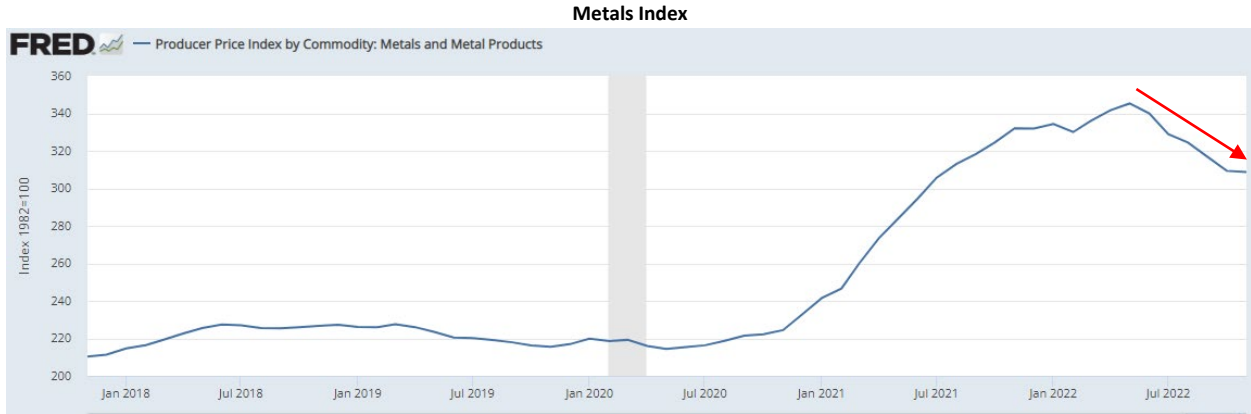


With decreased transaction volume, heightened recession probability, and higher interest rates, we make the following recommendations:

- 1. Avoid interest rate tunnel vision. Rent growth can be more impactful on cap rates.**
Interest rates are easy to understand and monitor. But they are sometimes mistaken as the cause of economic turmoil when they are actually the effect of those issues. Effort is better spent on understanding real estate market data such as supply, rent growth, and vacancy.
- 2. Don't be a forced seller. Make sure you have a backup plan and capital flexibility.**
The uncertainty in the market today makes it difficult to predict pricing, cost of borrowing, and availability of funds in the near term. Have a plan B for your refinance, sale, etc.
- 3. Understand what a recession scenario looks like for your asset**
Clearly the market is warning us that the probability of a recession is increasing. Speculative development in an oversupplied market could turn into a bad situation quickly. So could aggressive rent or pricing projections combined with an aggressive capital structure.

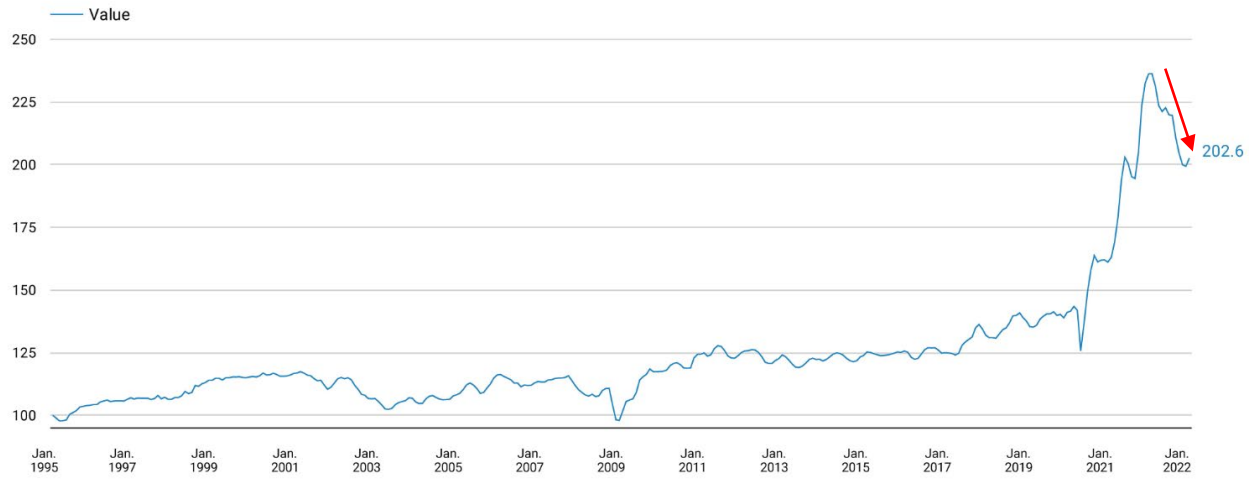
Appendix: Interesting Inflation Graphs





Source: Fitch Ratings, Bloomberg, Shanghai Shipping Exchange, Cosco, Alphaliner

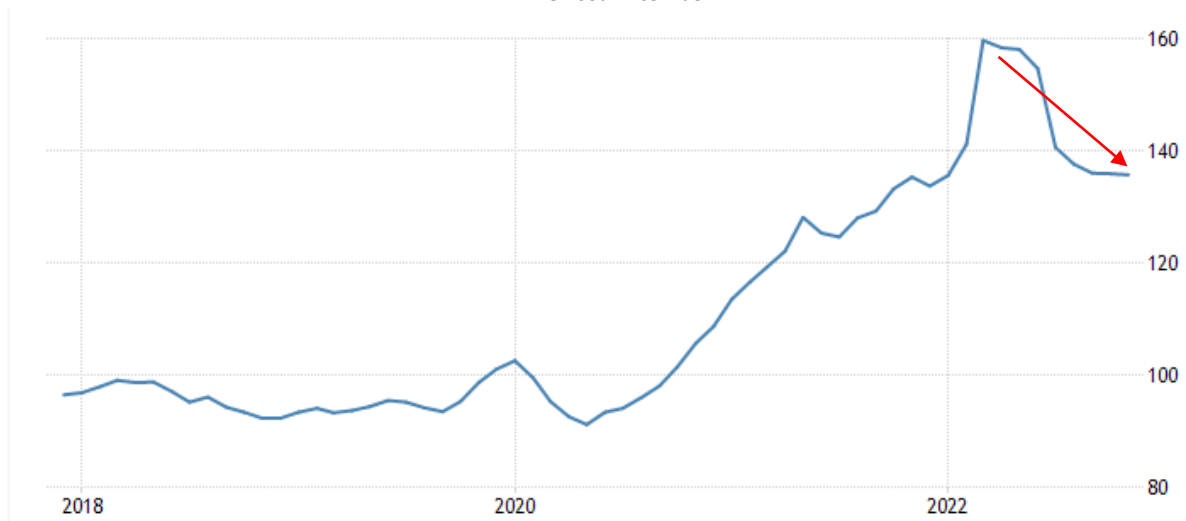
Wholesale Used Vehicle Prices
MANHEIM USED VEHICLE VALUE INDEX
 Mid-December 2022



Farm Commodity Index



FAO Food Price Index



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