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Astra Ventures

A Primer on How to Interpret the Components of CPI and the Case for Persistent Inflation

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A PRIMER ON HOW TO INTERPRET THE COMPONENTS OF CPI

AND THE CASE FOR PERSISTENT INFLATION

ASTRA VENTURES

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MANAGEMENT TEAM

⋺ 🛛 Ed Lalanne - Chief Investment Officer





Experience

- Tse Capital Management (NYC) Investment Analyst for a \$1 billion+ global macro hedge fund
- Bloomberg (NYC)
- Macro Risk Advisers (NYC)
- Lehman Brothers (NYC)

Education

- MBA Kellogg School of Management at Northwestern University (2008)
- BA Dartmouth College (1999)

Interesting Facts

- Avid sailor: competed on a top-10 nationally ranked team in college
- Sailed across the South Pacific for six months
- Married to Natasha Lalanne
- Has 1 daughter (Julie Mae Lalanne)

🔊 Stephen Buehler - Founder, Chief Operating/Compliance Officer





Experience

- Blackstone (NYC) Managing Director & Chief Operating Officer of a \$9.5 billion business within the hedge fund division
- Merrill Lynch (NYC)
- KPMG (Memphis)
- Arthur Andersen (Memphis)

Education

- MBA Kellogg School of Management at Northwestern University (2008)
- BA/BBA Mississippi State University (2000)

Interesting Facts

- SCUBA on Great Barrier Reef & ran with bulls in Pamplona, Spain
- Named one of the "Top 100 Graduates in First 100 Years of MSU's College of Business"
- Married to Jennifer Stieber Buehler
- Has 1 daughter (Bethany Maria Buehler)

TO HAVE A VIEWPOINT ON INFLATION, YOU MUST FIRST UNDERSTAND THE COMPONENT PARTS

Below is the breakdown of the U.S. CPI basket that determines the headline inflation rate, with the weight of each category

Category	Weight
Rent	32.6%
Energy	7.3%
Food	13.4%
Goods other than energy and food	21.7%
Services other than rent and energy	25.0%
Total	100%

• Prices within each category change from period to period. The weighted change of all categories is what determines the overall change Headline CPI

(1) Inflation categories and weights from US Bureau of Labor Statistics https://www.bls.gov/cpi/

AS AN EXAMPLE, WE CAN DIG INTO ENERGY AS A CATEGORY

The Energy category includes gasoline (a good), electricity (a service), and a couple other items.

Category	Jan. 2021 weight	Y/Y change	Contribution to 7.5% increase
Energy	6.3% X	27.0% =	= 1.7%

- The U.S. Bureau of Labor Statistics estimates the price of all items in the energy category increased an average 27.0% between Jan. 2021 and Jan. 2022
- Multiplying energy's 2021 weight of 6.3% by its 27.0% Y/Y increase tells you how much the category contributed to CPI's overall 7.5% Y/Y increase
- 6.3% weight * 27.0% increase = 1.7% contribution to CPI's overall 7.5% increase

(1) Inflation categories and weights and changes period to period from US Bureau of Labor Statistics https://www.bls.gov/cpi/

PUTTING IT ALL TOGETHER...

Calculating category contributions shows which goods and services are driving CPI's 7.5% year-over-year increase

Category	Jan. 2021 weight	Y	//Y change		Contribution to 7.5% increase
Rent	32.9%	х	4.4%	=	1.4%
Energy	6.3%	x	27.0%	=	1.7%
Food	14.1%	X	7.0%	=	1.0%
Goods other than energy and food	20.2%	X	11.7%	=	2.4%
Services other than rent and energy	26.5%	x	3.8%	=	1.0%
Total	100%				7.5%

- Almost half of today's 7.5% headline CPI increase is due to fast rising prices in two categories, Energy and Autos (which is part of Goods other than Energy and Food), that make up just 13.4% of the basket's total weight
 - New and used vehicles and auto parts: 7.1% weight * 23.4% increase = 1.7%
 - 1.7% energy contribution + 1.7% cars contribution = 3.4%, or 45% of CPI's overall 7.5% increase
- As you can see in the above table, Rent is the largest Category by Weight. But it was the 2nd lowest Year over Year (Y/Y) change.
- Because of the nearly 1/3 weighting of Rent, the future Y/Y changes will be critical to monitor

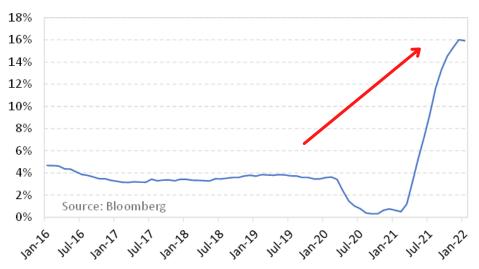
(1) Inflation categories and weights and changes period to period from US Bureau of Labor Statistics https://www.bls.gov/cpi/

FUTURE CPI TRENDS WILL BE HEAVILY INFLUENCED BY RENTS

We can estimate what CPI inflation will look like in a year from now by considering various scenarios

Category	Jan. 2022 weight	Y/Y hypothetical change	Contribution to Y/Y CPI in Jan. 2023
Rent	32.6%	K 10% =	3.3%
Energy	7.3%	K = 0% K =	0%
Food	13.4%	0%	0%
Goods other than energy and food	21.7%	K = 0%	0%
Services other than rent and energy	25.0%	K = 0%	0%
Total	100%		3.3%

• As we outlined in our last webinar, the rent prices we see today are captured in CPI over time, and are only reflected in full as much as a year later

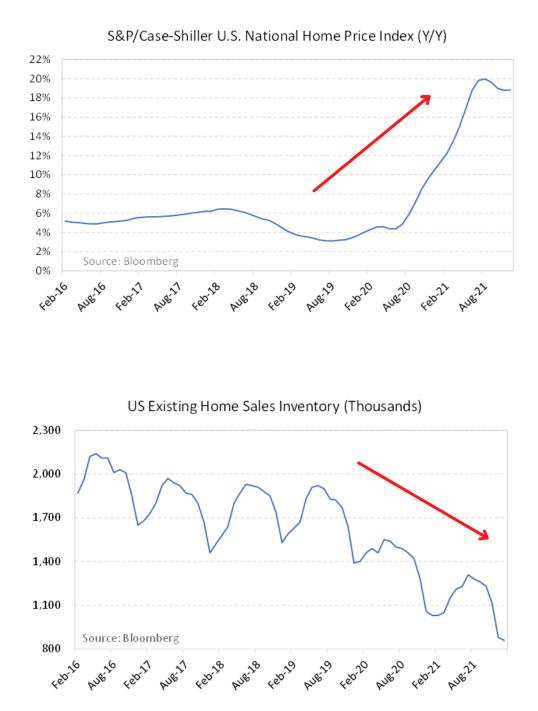


Zillow U.S. National Rent Index (Y/Y)

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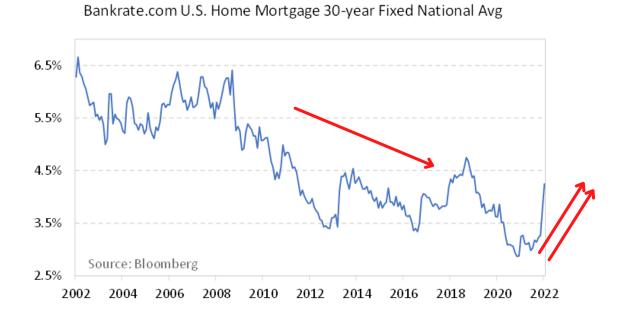
What are some of the most significant signals we are focused on?



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MODELING RENTS GOING FORWARD

What are some of the most significant signals we are focused on?



Rental Vacancy Rates U.S. Houses And Apartments



(1) Inflation categories and weights and changes period to period from US Bureau of Labor Statistics https://www.bls.gov/cpi/



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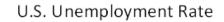
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What are some of the most significant signals we are focused on?



U.S. Job Openings Openings (Thousands)

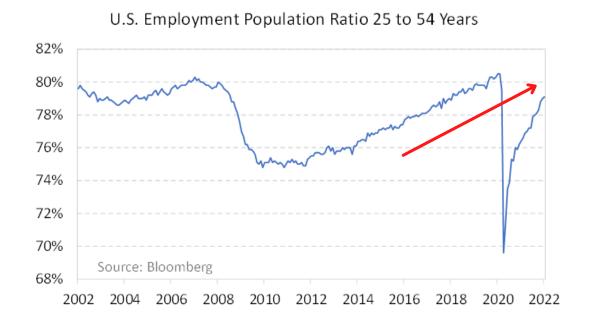




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SUMMARY TAKEAWAYS

- Each of the noted data points highlighted indicate that there are continued upward pressures on Rents
- These trends are reflected in Rents (as part of CPI) on a delayed basis
- Therefore, the impact of Rents on CPI is still to come
- And given Rents currently represent nearly 33% weighting in Headline CPI, future trends in Rents are critically important
- We believe that markets are underappreciating this dynamic

ALL STRATEGIES HAVE INVESTMENT RISK - INVESTORS SHOULD DETERMINE WHAT APPROACH BEST FITS THEIR UNIQUE OBJECTIVES

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THANK YOU

