ARBOR DATA SCIENCE

Inflation, Knockin' on Heaven's Door

August 27, 2020

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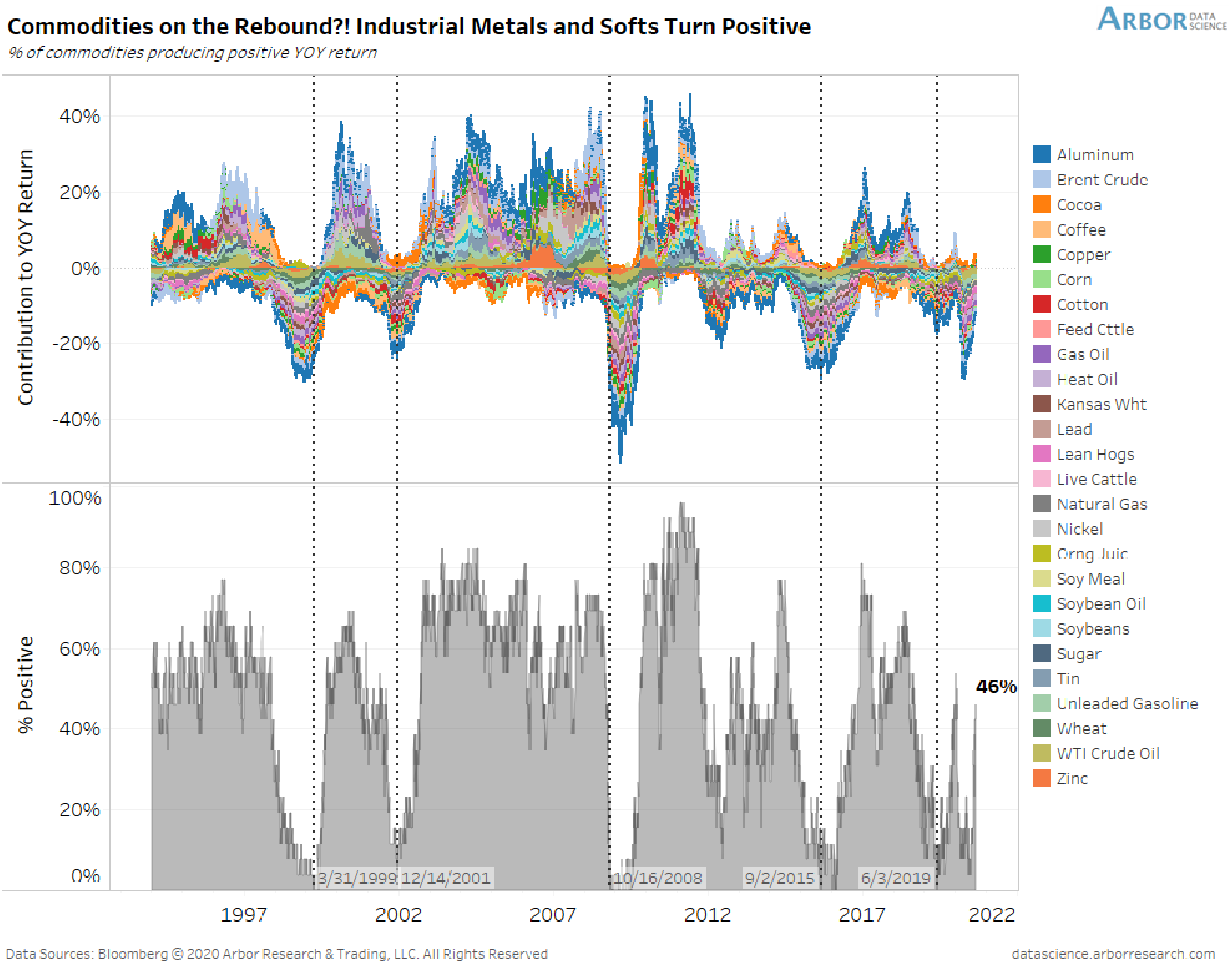
Key Points

- Commodities on the Mend?
- Investors Still Racing Into Inflation Protection ETFs
- Options Based Inflation Expectations
- No One Knows What Produces Inflation
- COVID-19 Scenario Analysis: Sticky CPI Set to Recede Toward Long-Run Mean?
- What to Watch with Inflation and Volatily
- Apparel, Autos and Flexible CPI

Commodities on the Mend?

46% of all major economies are now positive year-over-year, led by industrial metals including copper, tin, and zinc.

[Industrial search activity](#) remains a bright spot across the globe, fueled by China's demand from trading partners in the eurozone and peripheral Asia.

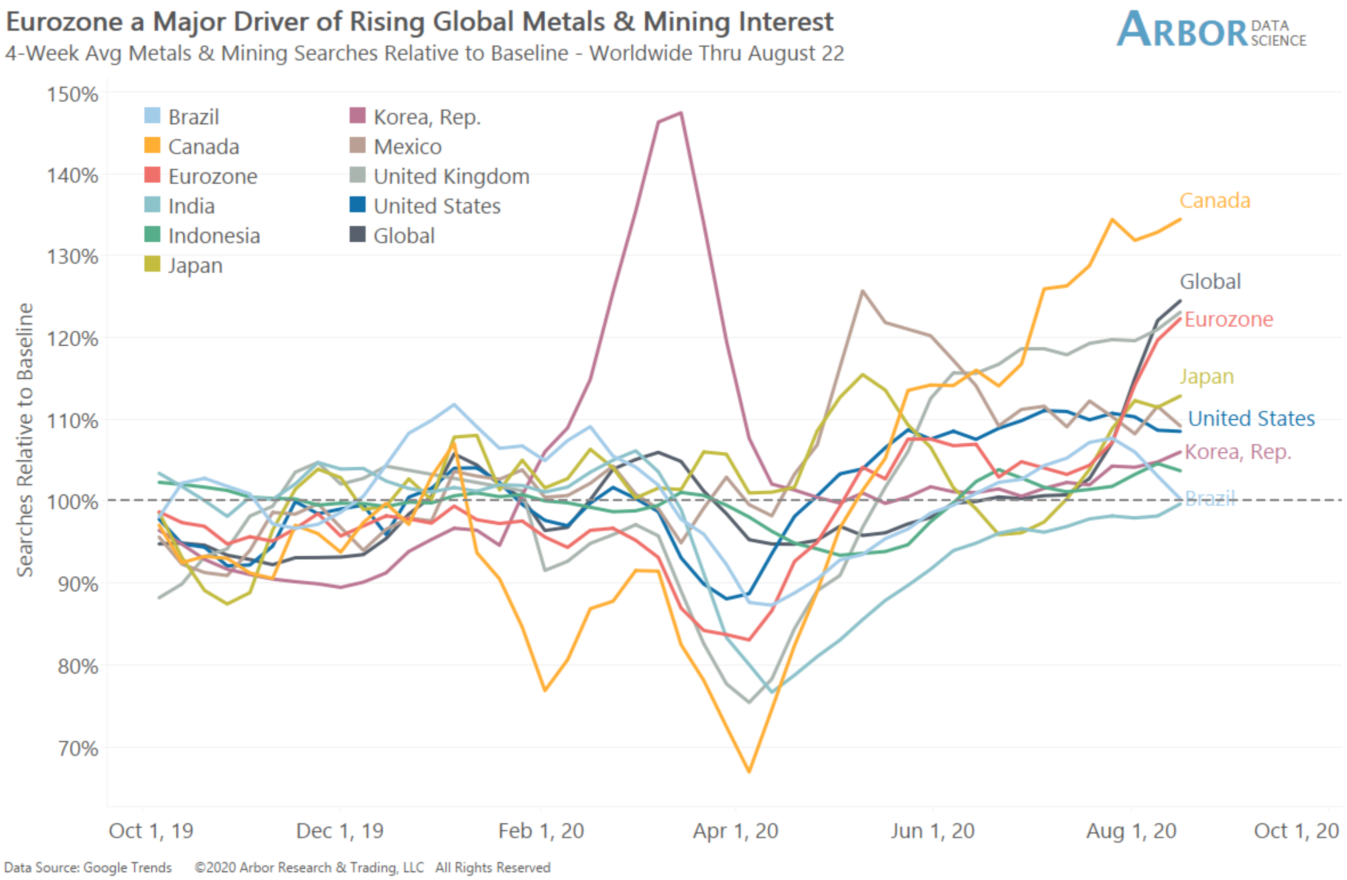


Commodities on the Mend?

Industrial inputs are clearly benefitting from resurgent demand across the globe. Europe leads but the global industrial economy has reignited.

Metals & mining searches reflect both the tailwinds from industrial reopening and the surging demand for precious metals.

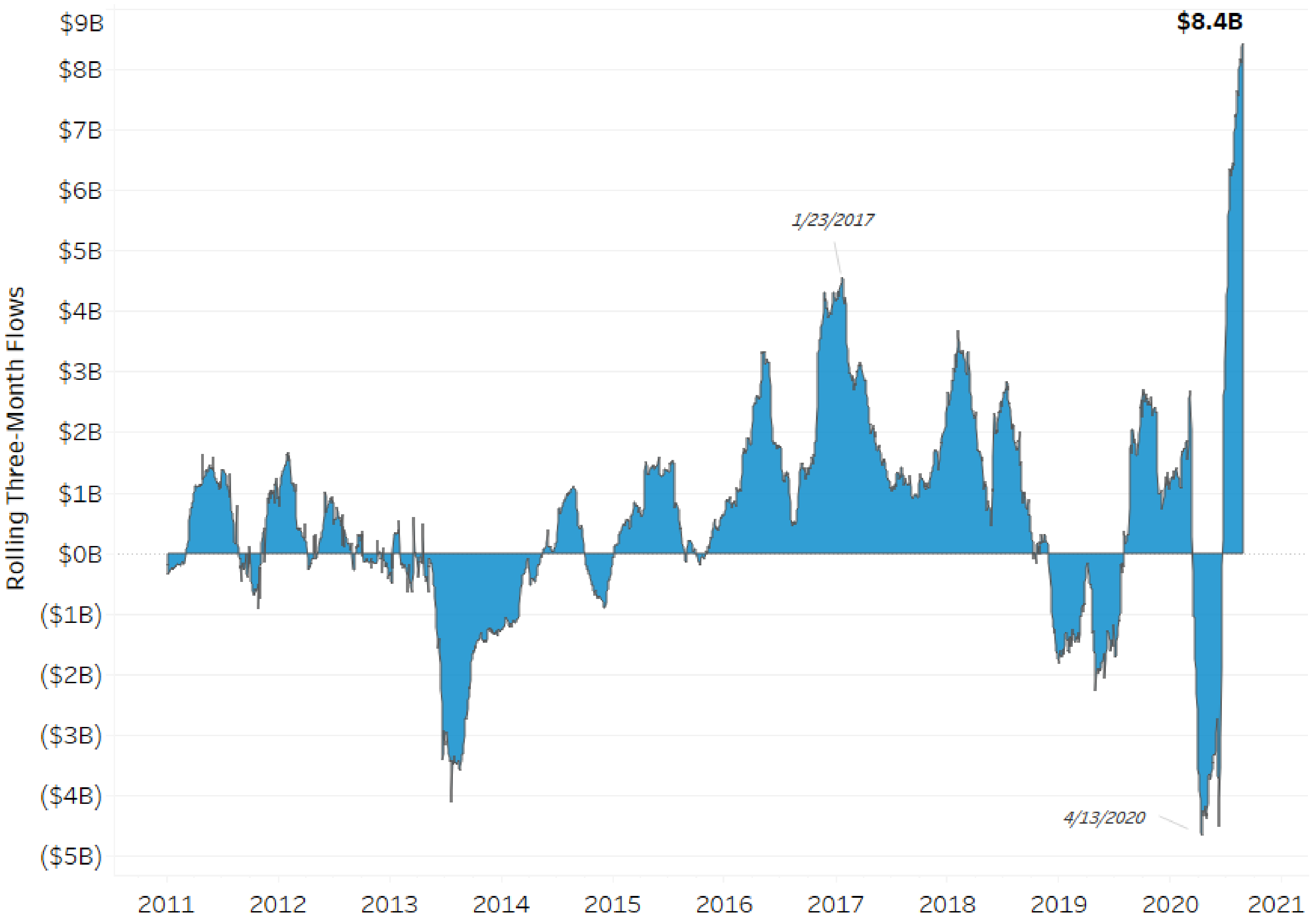
With sustained demand for building materials, chemicals and other industrial inputs, price pressures are building in some areas.



Investors Still Racing Into Inflation Protection ETFs

Investors have yet to damper their thirst for inflation protection ETFs, which have amassed a record $8.4 billion over the past three months.

Record Flows Into Inflation Protection ETFs



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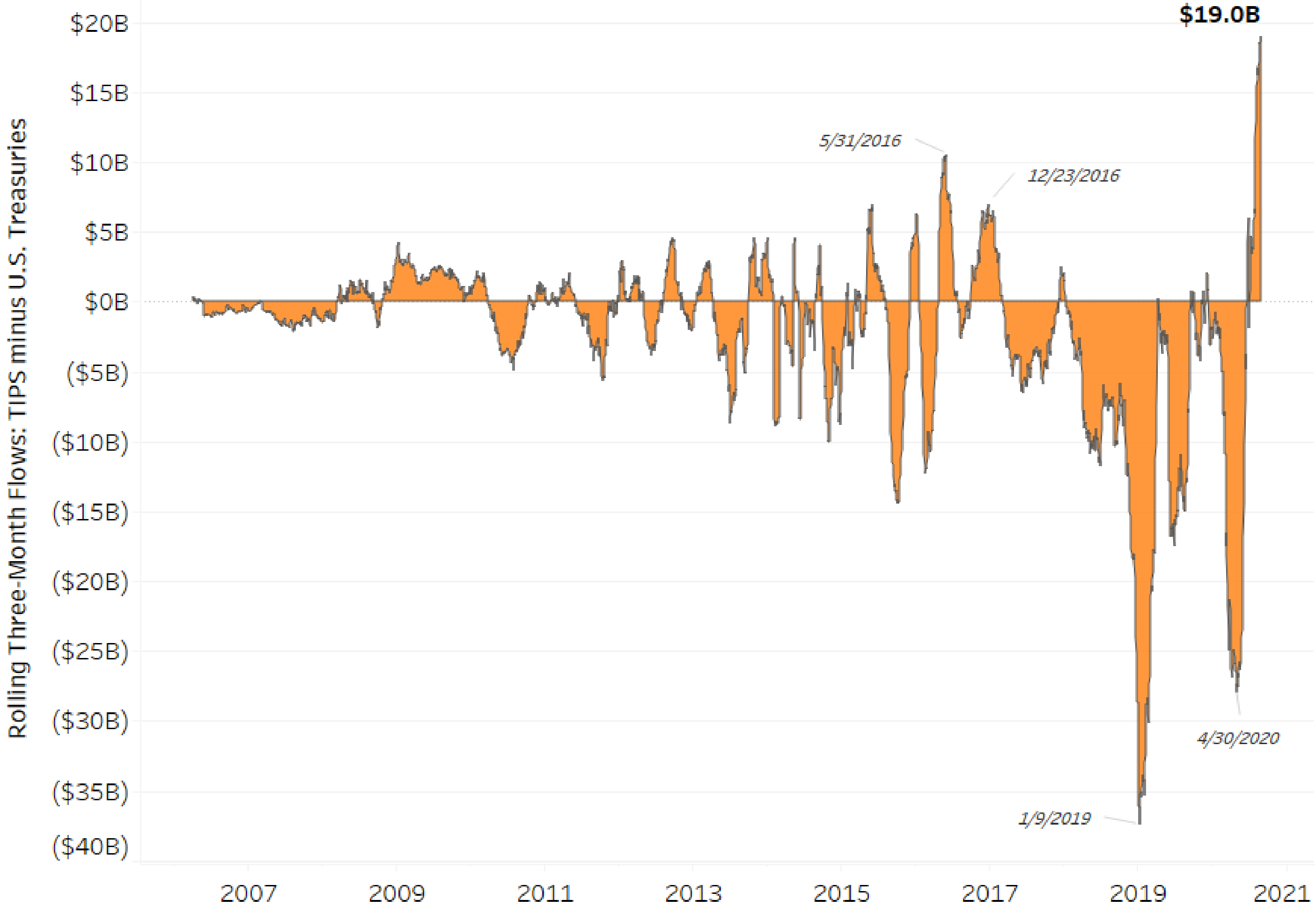
Investors Still Racing Into Inflation Protection ETFs

The spread between rolling three-month ETF flows for TIPS minus nominal U.S. Treasuries has blown out to $19 billion.

Investors have little appetite for nominal Treasuries. The Federal Reserve continues to buy, while volatility remains less than lethargic.

Investors Send More Into TIPS Than Treasuries



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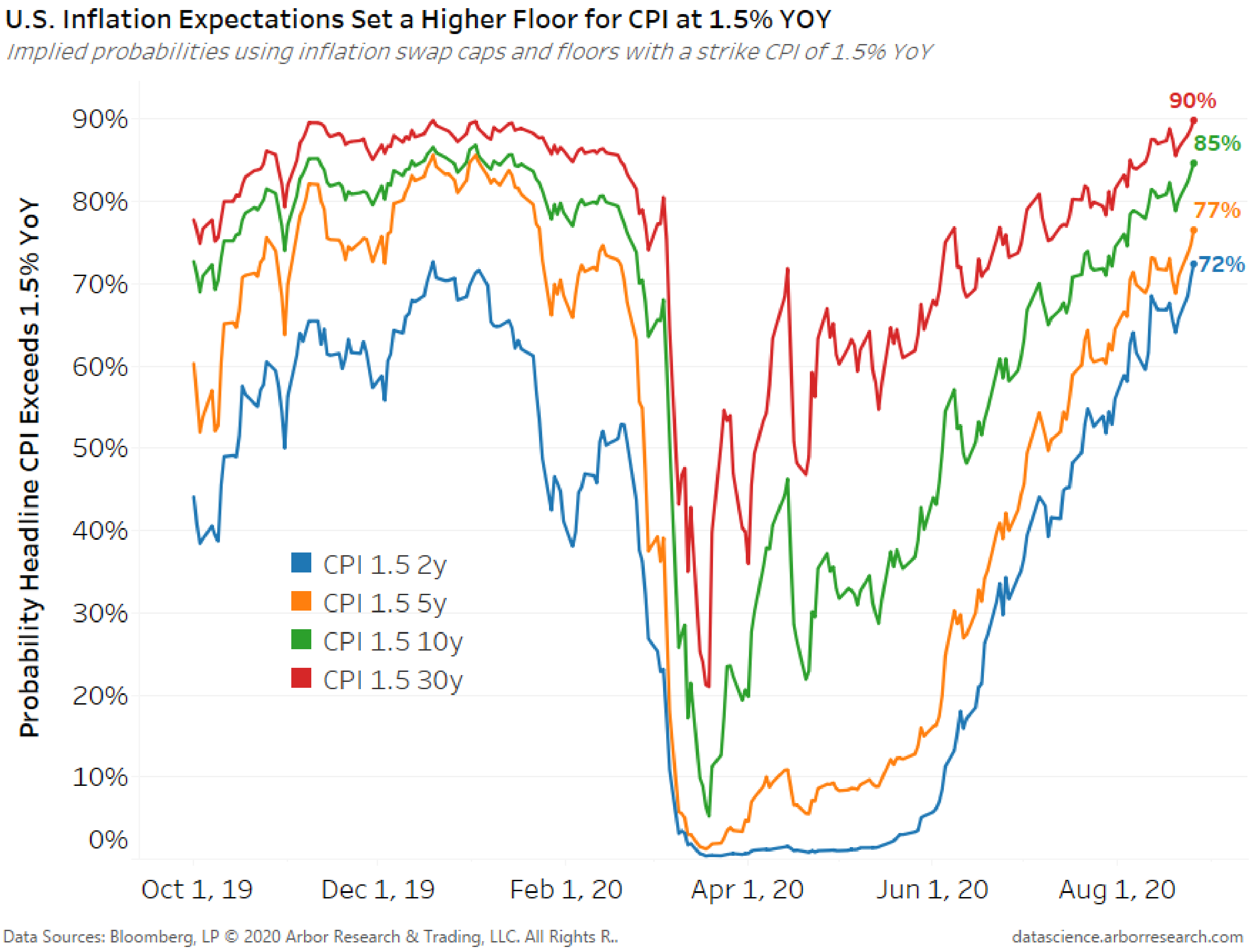
Investors Maintain a Floor for Headline CPI to 1.5% YoY

Inflation swap caps and floors reveal most of TIPS breakevens' widening is thanks to the ***left-side tail of CPI expectations evaporating***. Do not discount the significant drop in liquidity premiums as well, helped by active Fed purchases.

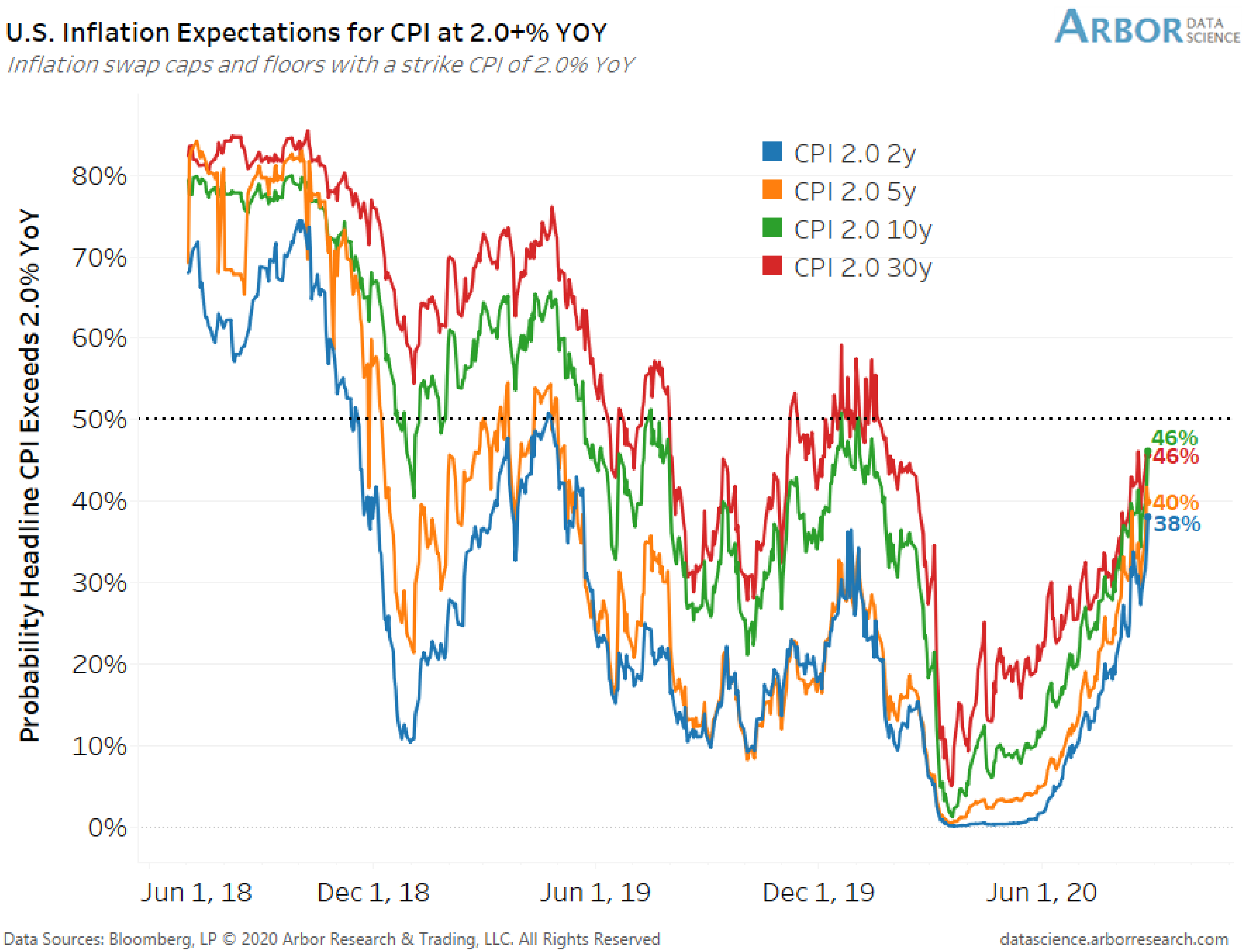
Investors maintain a floor for CPI over the next five years at 1.5% YoY.



Need Investors to Price in Headline CPI > 2% to See Real Excitement

The Federal Reserve's July minutes pushed out the potential for average inflation targeting or yield curve control. Notably, growth expectations dropped, helping cause a retreat in investors' expectations for headline CPI reaching and/or exceeding 2.0% YoY.

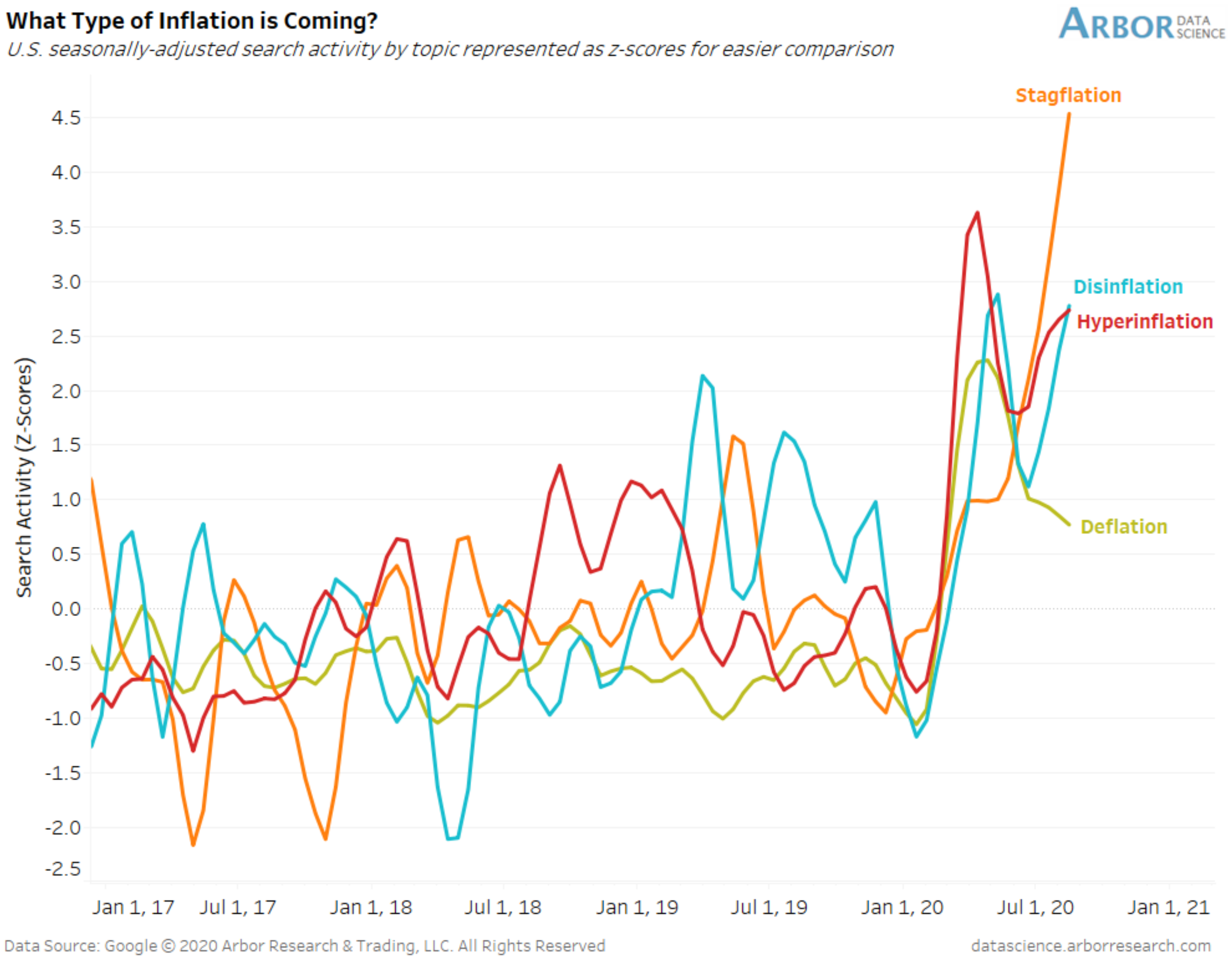
Ultimately, a break above 50% probabilities will be needed to signal real and lasting excitement over the prospect of inflation.



No One Knows What Produces Inflation

Search activity for what type of inflation we will get has shot highest for stagflation, while deflation moderates.

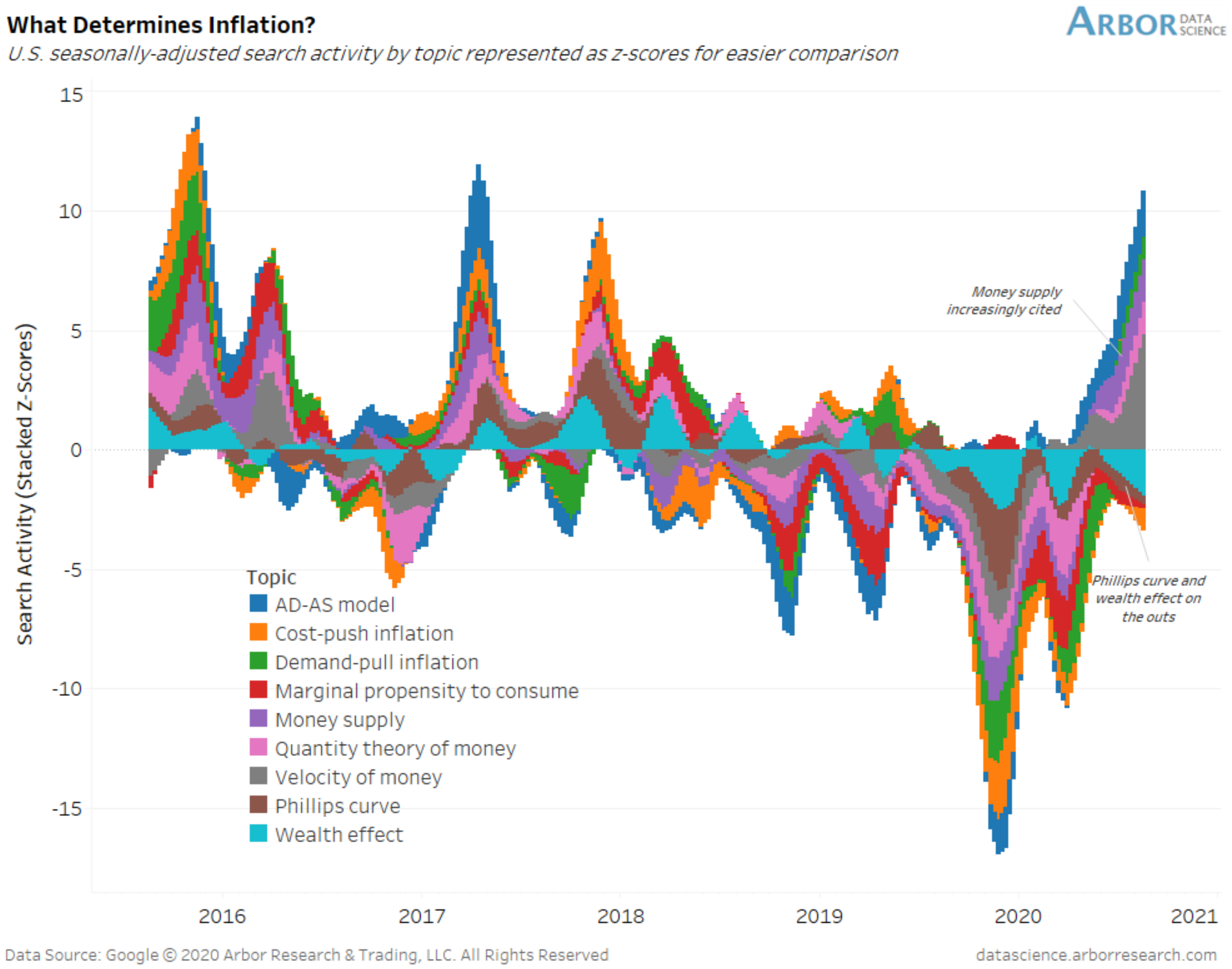
But, consumers and investors remain undecided with disinflation and the polar opposite hyperinflation maintain plenty of interest.



No One Knows What Produces Inflation

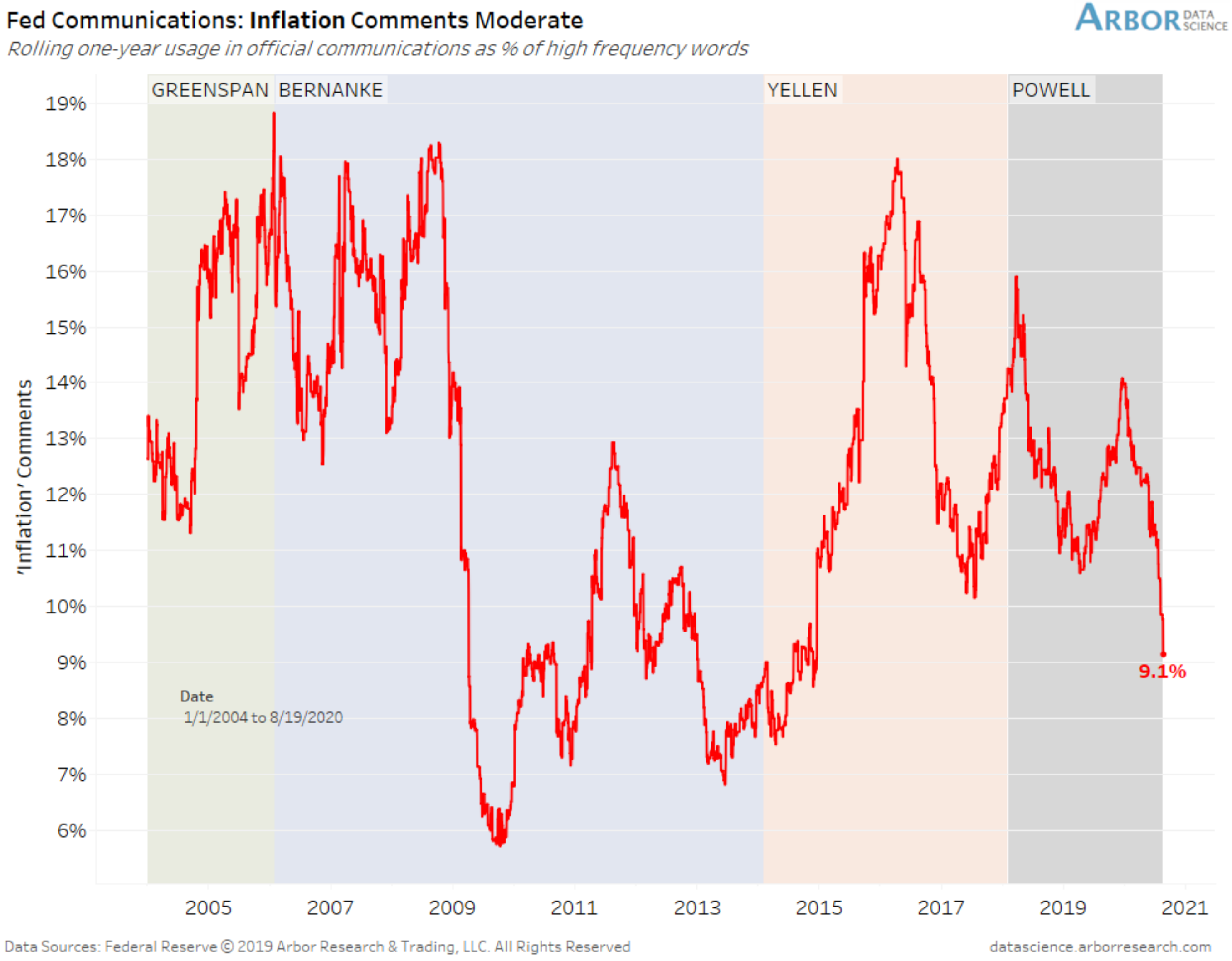
Bottom line, consumers and investors remain horribly confused by what causes lasting inflation. The chart shows search activity for a range of topics tied to inflation from the aggregate demand–aggregate supply (AD-AS) model to the so-called wealth effect.

Money supply continues to gain the most interest, even though its correlation to headline CPI has been near zero for decades on end.



No One Knows What Produces Inflation

Potentially as a precursor to average inflation targeting, officials have discussed inflation at a declining rate. Only 9.1% of high frequency comments are about inflation expectations or consumer prices, off from a recent peak at 18% under Yellen in 2016.



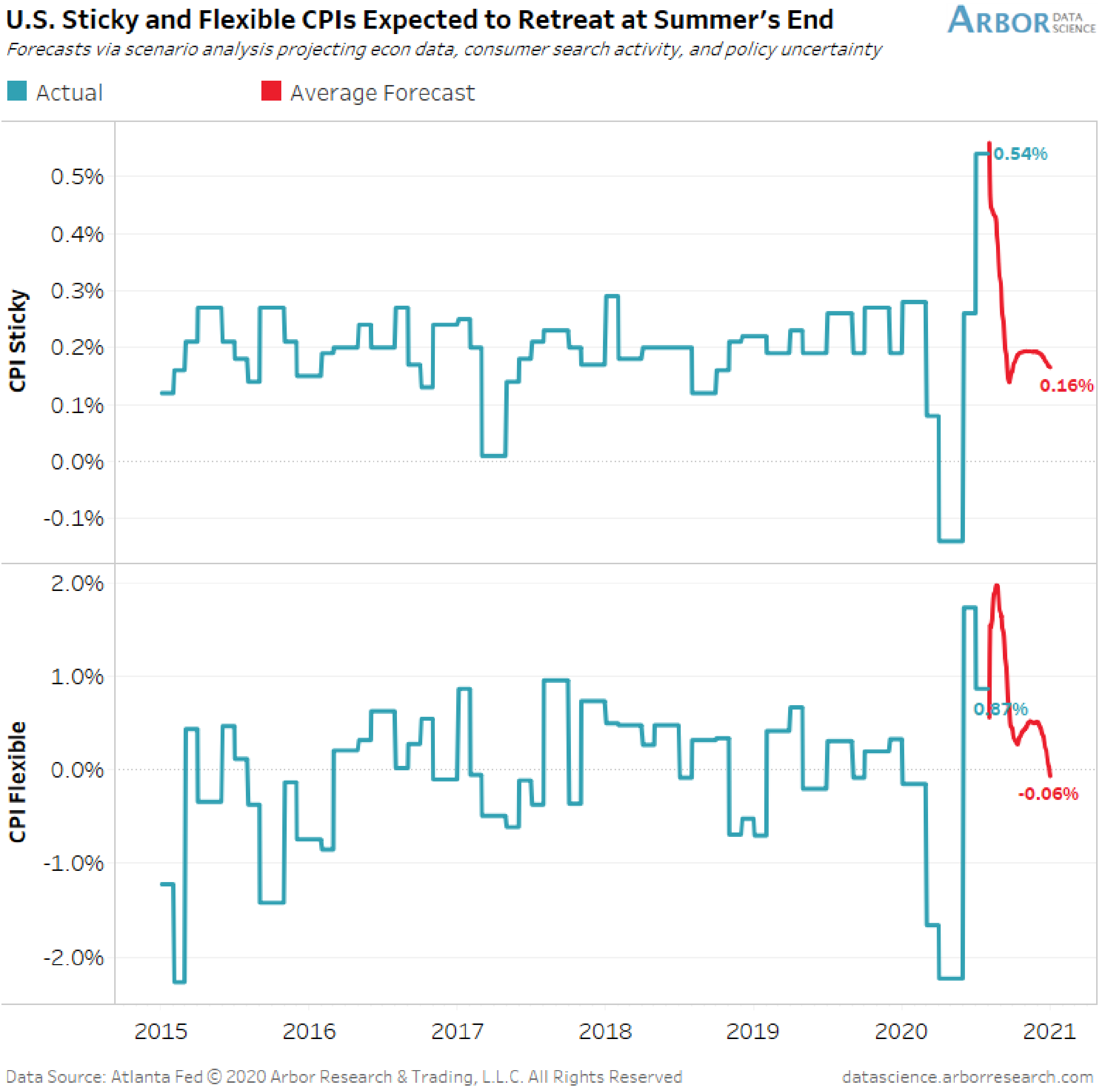
COVID-19 Scenario Analysis: Sticky CPI Set to Recede Toward Long-Run Mean

The chart shows an equal-weighted average of five potential scenarios for sticky and flexible CPIs (MoM) through year-end. Therefore, this average implies:

- 60% chance of continued improvements in searches, economic momentum and uncertainty
- 40% probability of COVID-19 cases rising throughout the summer / fall months, ultimately denting consumer demand.

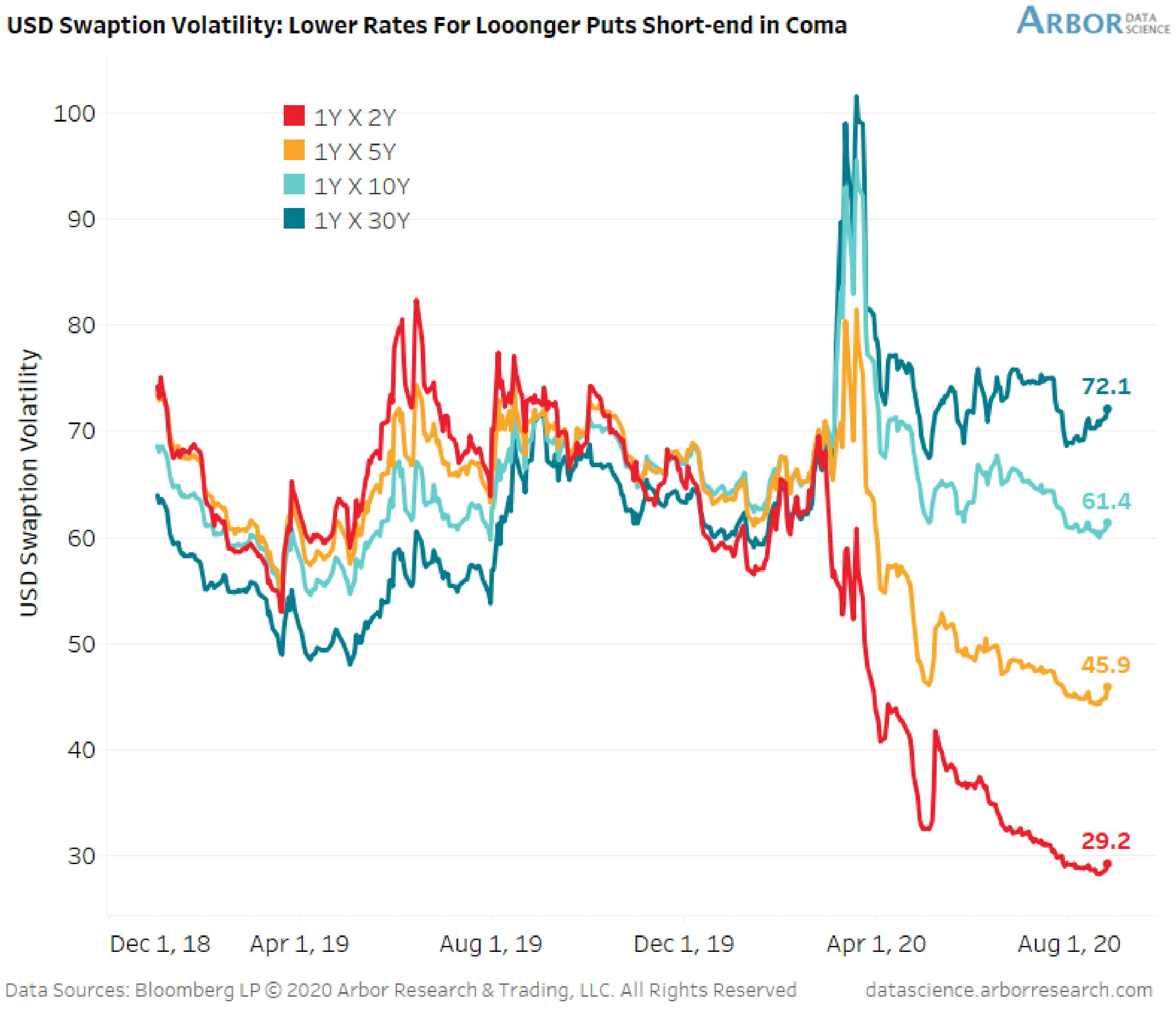
Sticky CPI is expected to retreat toward its post-crisis median near 0.2% MoM by summer's end. Flexible CPI has potential to still surprise through early September but is expected to near 0% MoM by year-end.

Bottom line, core or sticky CPI's ability to maintain elevated MoM gains would be a game-changer. Remember core CPI has dropped to new regime after each and every recession since the 1980s. It's hard not to expect it to remain near post-crisis ranges at the very least. Therefore, the next few core CPI prints will be extremely important for once.



UST Volatility Reveals Little to No Concern

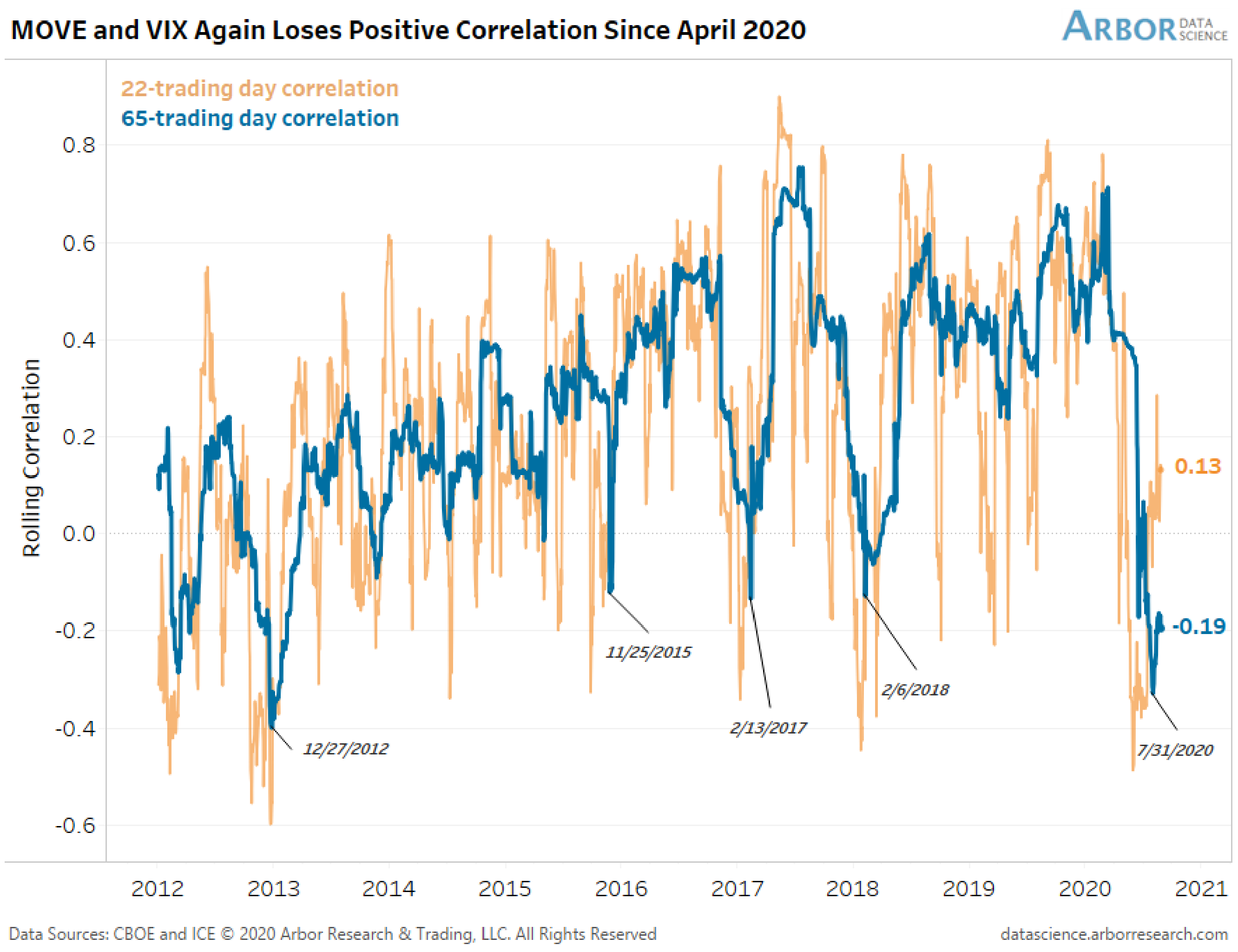
The chart shows USD swaption volatility with an expiry of 1-year versus tenors from two to 30 years. Short-end volatility has collapsed with the Federal Reserve committed to near-zero interest rates for years to come. Implied volatility centered on the next five and ten years has continued to recede since the liquidity-induced mania of March 2020. Expected volatility needs a concerted break higher further out the curve to signal an expanding inflation premium is increasing uncertainty and needed compensation to take the risk.



MOVE and VIX End Positive Correlation

Implied volatility for the S&P 500 and U.S. Treasuries has completely disconnected since April 2020. The MOVE and VIX has maintained a moderately rising positive correlation since the financial crisis, meaning higher volatility on one side was met on the other. This game changed once the Federal Reserve committed to purchases beyond only U.S. Treasuries and the potential of average inflation targeting and yield curve control.

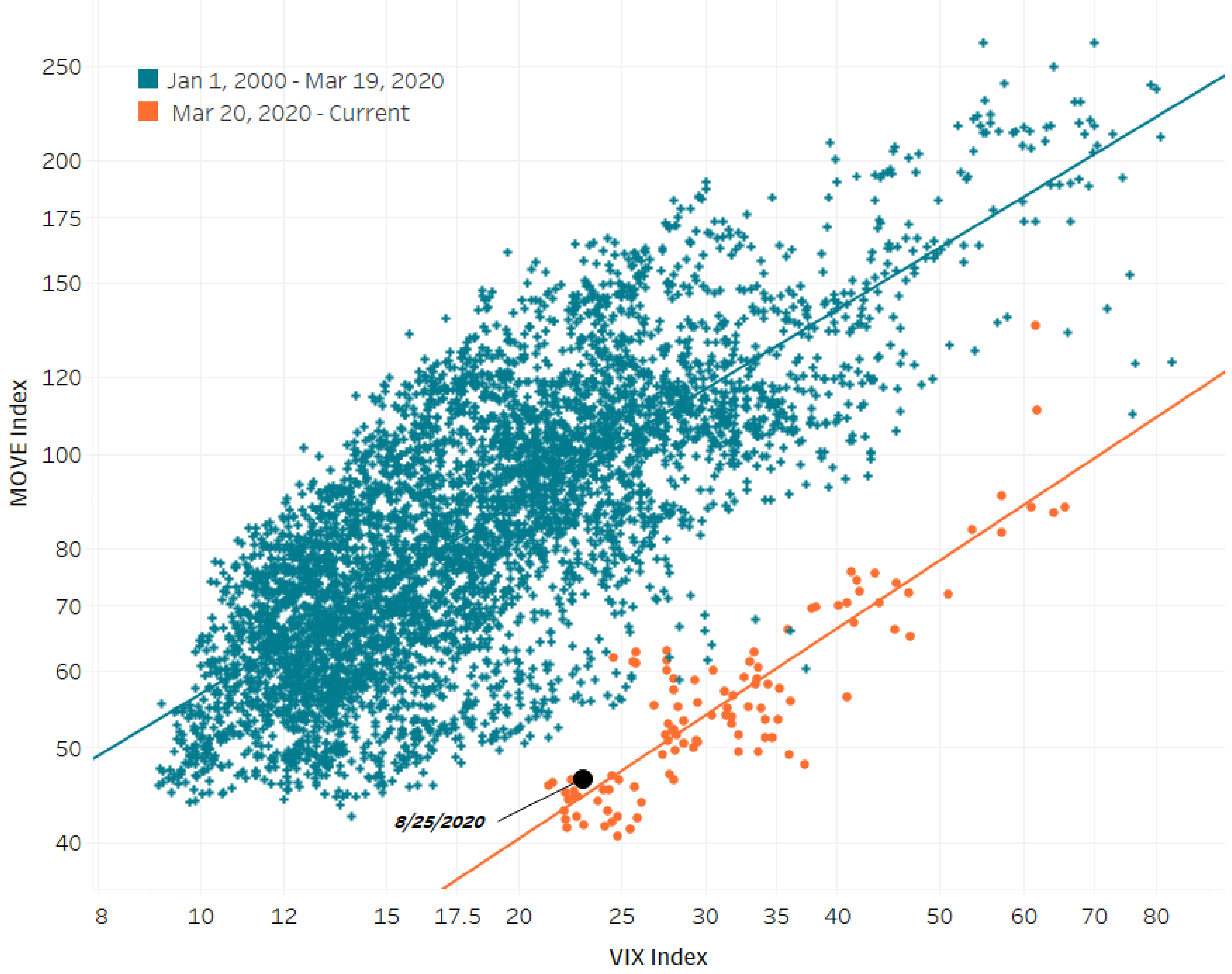
A rise in the correlation of risk and safe asset volatility would suggest equities are finally acknowledging shifting interest rates could bite.



Equity and U.S. Treasury Volatility See Substantial Shift in Relationship

The relationship between the MOVE and VIX indices has become dramatically different since March 2020. The MOVE index is residing no where near levels we should expect given the VIX. The entire distribution of U.S. Treasury volatility has shifted lower relative to equities. All in all, equity investors seemingly feel very comfortable with interest rates and their expectation direction. The MOVE index shifting back toward its pre-COVID-19 relationship could very well mark inflation and interest rates in general are again a consideration.

VIX vs MOVE Relationship Significantly Different Since March 2020



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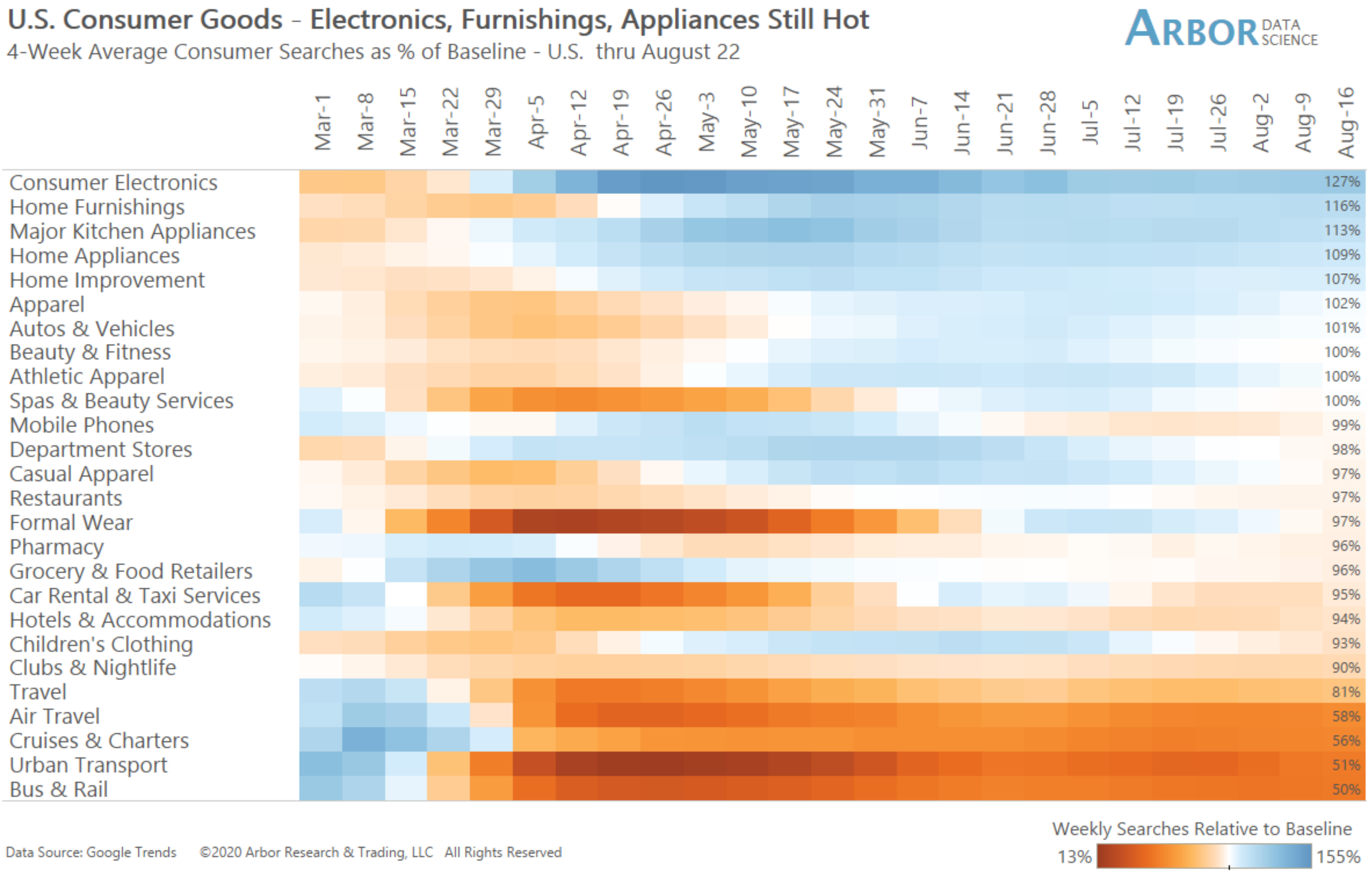
What to Watch for Flexible CPI

We have our eye on two components in particular as it relates to the near-term inflation picture. These are autos and apparel.

Both consumer spending categories are seeing resilient search activity as going out and travel categories languish. Both contributed to the jump in consumer inflation.

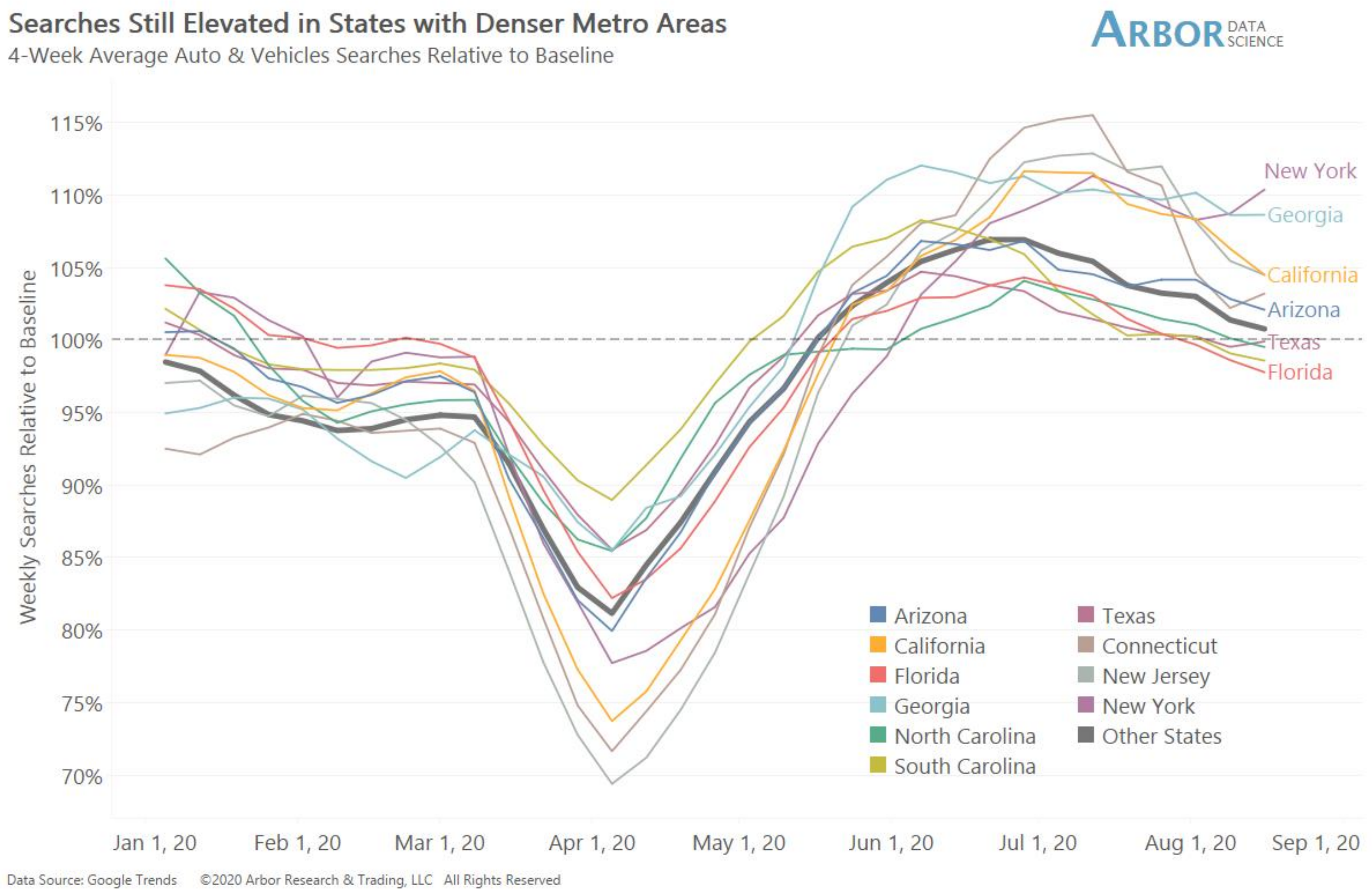


What to Watch for Flexible CPI

Consumer searches tied to auto shopping are slowly falling back to baseline forecasts.

Over a quarter of states, including many with large metros, are seeing auto & vehicle searches exceed 109% of baseline.

In the context of constrained new and used car inventories, this will continue to boost prices in the near term.

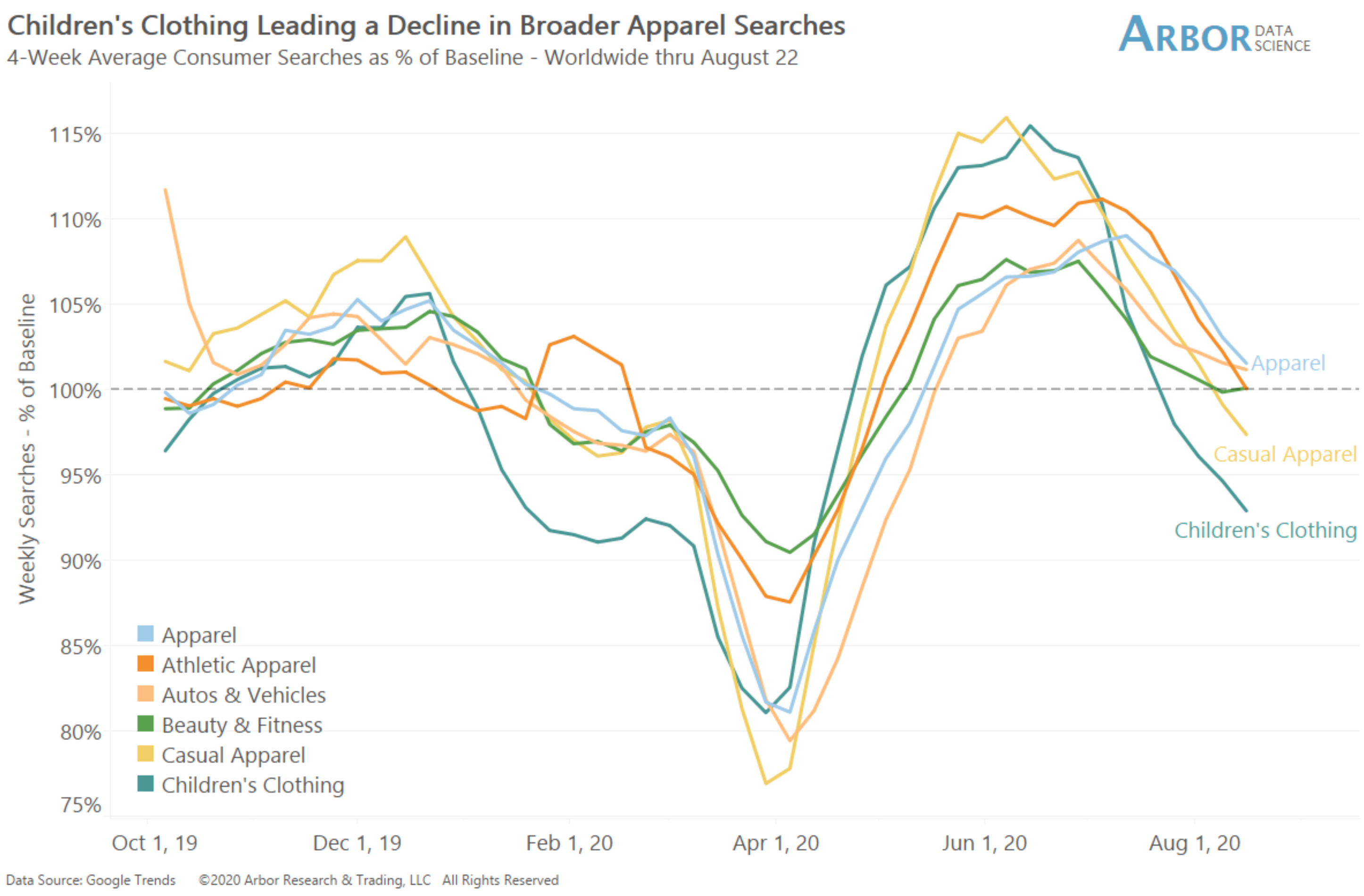


What to Watch for Flexible CPI

Apparel is seeing a steeper fall toward baseline forecasts and both children's clothing and casual apparel have already fallen below baseline forecasts.

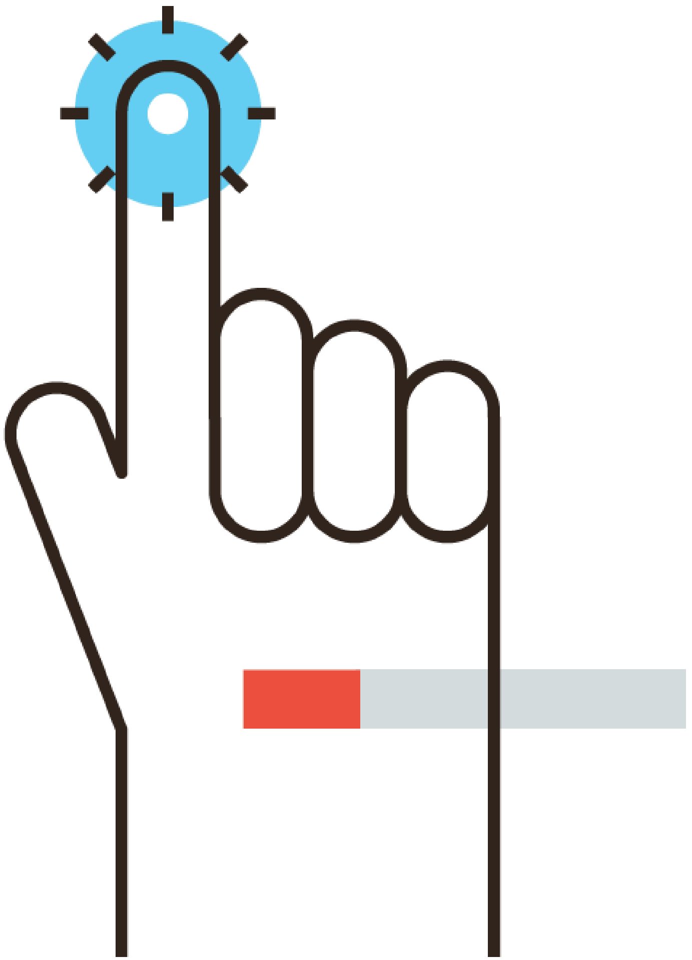
Unlike autos, apparel inventories for many items remain bloated after months of lockdowns and selective discounting.

Given the strain on retailers, we expect the inflationary influence of apparel to fade faster relative to autos.



Key Points:

- Nearly 50% of commodities achieving positive year over year returns, fueled in large part by global industrial reopening.
- Inflows into TIPS surge but follow outperformance
- Ultimately, a break above 50% probabilities that CPI exceeds 2% YoY will be needed to signal real and lasting excitement over the prospect of inflation.
- Sticky CPI is expected to retreat toward its post-crisis median near 0.2% MoM by summer's end. Flexible CPI has potential to still surprise through early September but is expected to near 0% MoM by year-end.
- The MOVE index shifting back toward its pre-COVID-19 relationship could very well mark inflation and interest rates in general are again a consideration.



Do NOT miss the following:

- **Arbor's Daily TIPS Report** including fair values, relative value by issue, and comments from both our Arbor Data Science and trading desk. Ask your sales representative for access.
- **TIPS' total returns and breakevens levels.**

- **Latest Inflation-Related Commentaries:**
  - Auto Industry Navigating Scarce Inventory, Persistent Demand (Aug 26)
  - Global Economic Growth Finally Swings for the Better (Aug 26)
  - Housing an Engine of Economic Momentum Again (Aug 25)
  - Average Inflation Targeting: What to Watch (Aug 25)

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