



Inflation Roundup

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The Arbor logo consists of a stylized line graph showing an upward trend, followed by the word "Arbor" in a sans-serif font.

Summary

The three components needed to foster an inflation premium within sovereign yields and risk assets were incrementally met beginning in early October:

- 1) >50% of economies growing above trend
- 2) >50% of commodities producing YOY gains
- 3) >50% probabilities headline CPI will average above 2.0% YOY

The blue wave has ignited a jump in nominal Treasury yields, while real yields refuse to follow along. The Federal Reserve's new AIT framework suggests dovish policy will persist in the face of rising inflation (if it really happens). TIPS breakevens have already produced record high Sharpe ratios, but have room to run according to risk assets.

The TIPS breakeven curve has inverted offers one hint of caution. Inversions have always been a signal of peaking inflation expectations. This time will have to prove different with the Federal Reserve remaining committed to full employment and AIT. Investors should prepare for this curve inversion to persist much longer than past episodes.

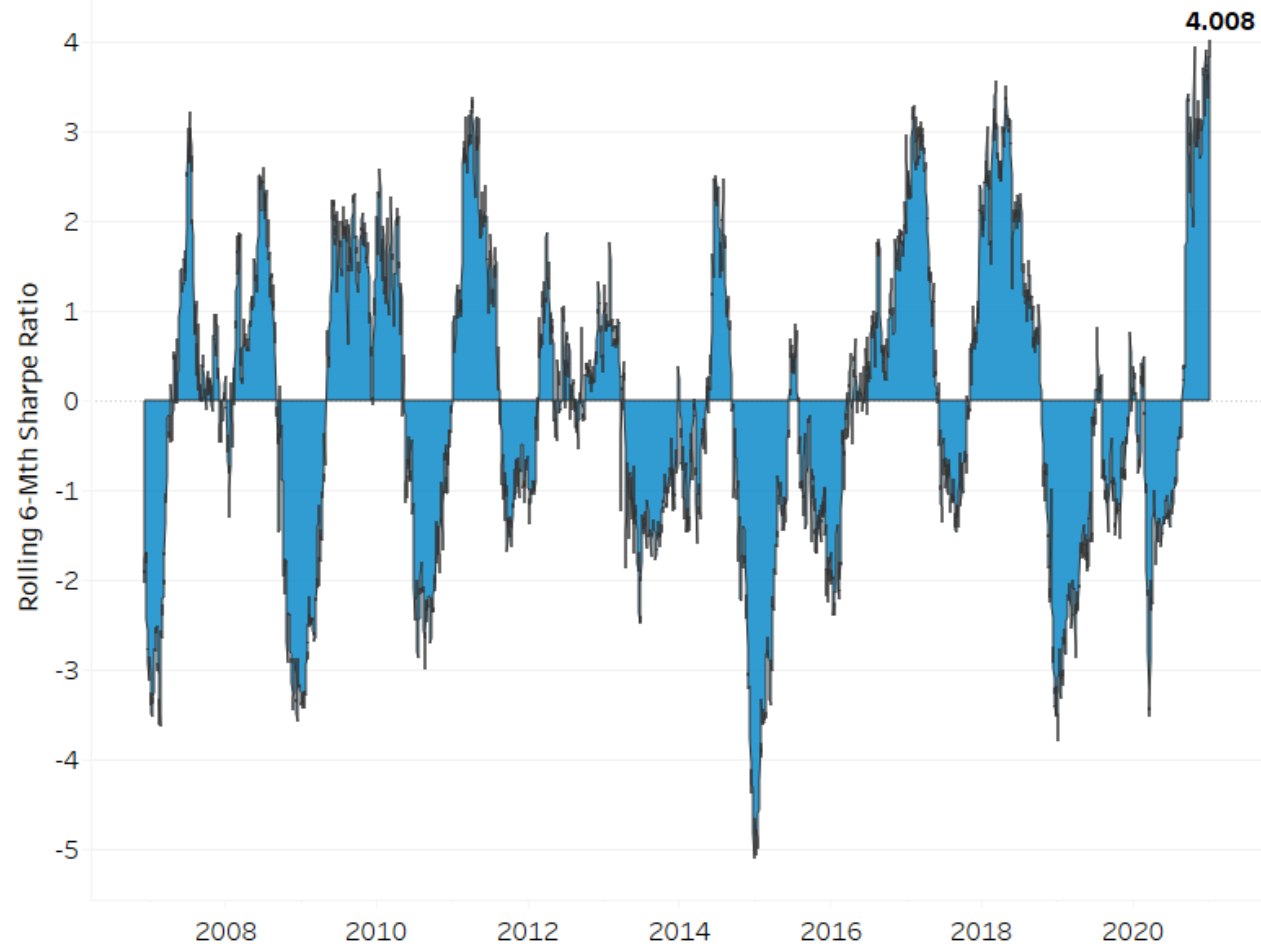
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U.S. 5-Year TIPS Breakevens' Sharpe Ratio Since Crisis

Rolling 6-mth Sharpe ratio (avg daily return - bills return) / st dev daily returns

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U.S. 5-year TIPS Breakevens
Produce Record
High Sharpe Ratio!!!

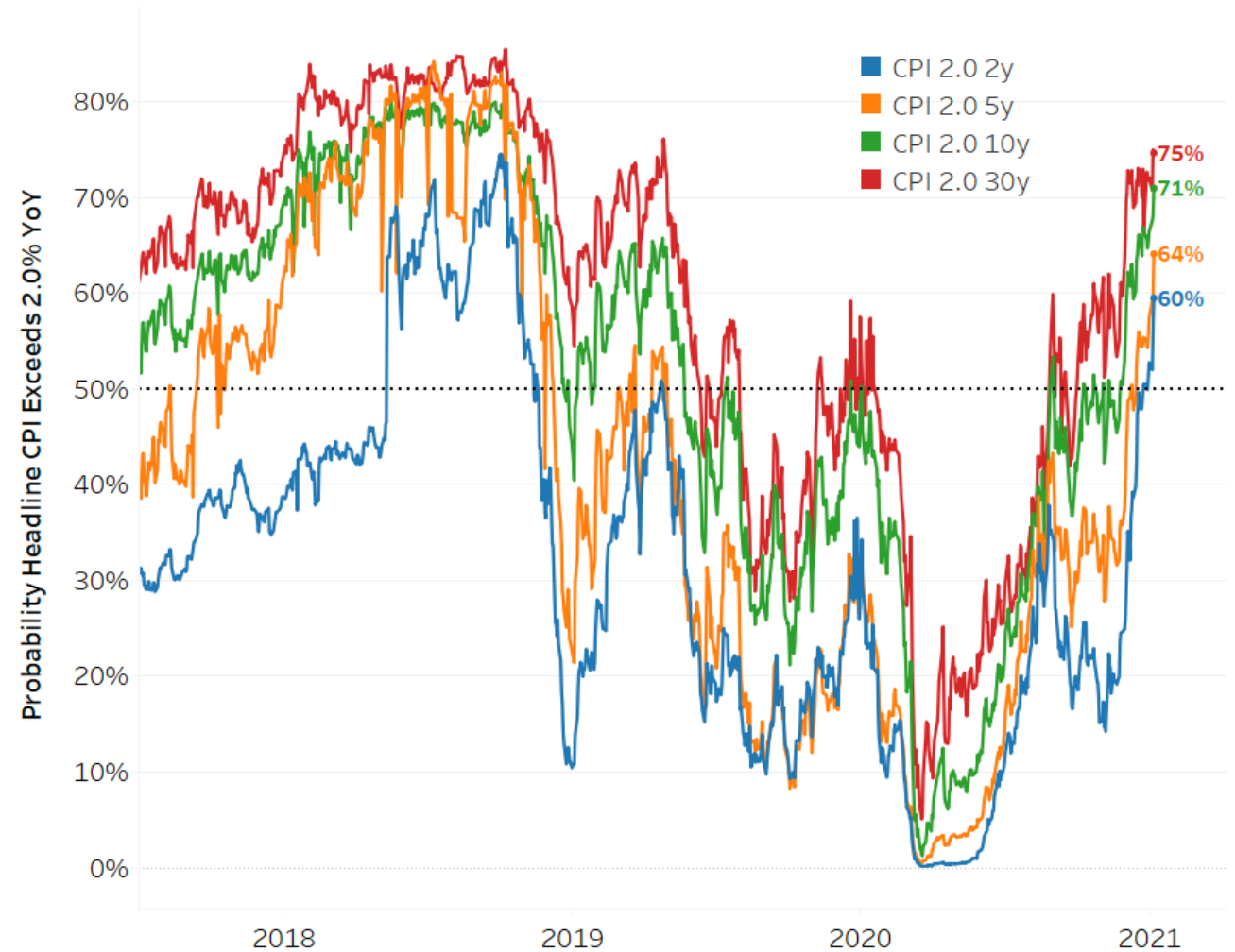
Investors Enthusiastically Price in Headline CPI > 2% YOY

- Inflation swap caps and floors act as calls and puts on headline CPI.
- All outlooks from 2 thru 30 years are pricing a 50+% probability headline CPI will average above 2.0% YOY.

U.S. Inflation Expectations for CPI at 2.0+% YOY

Implied probabilities using inflation swap caps and floors with a strike CPI of 2.0% YoY

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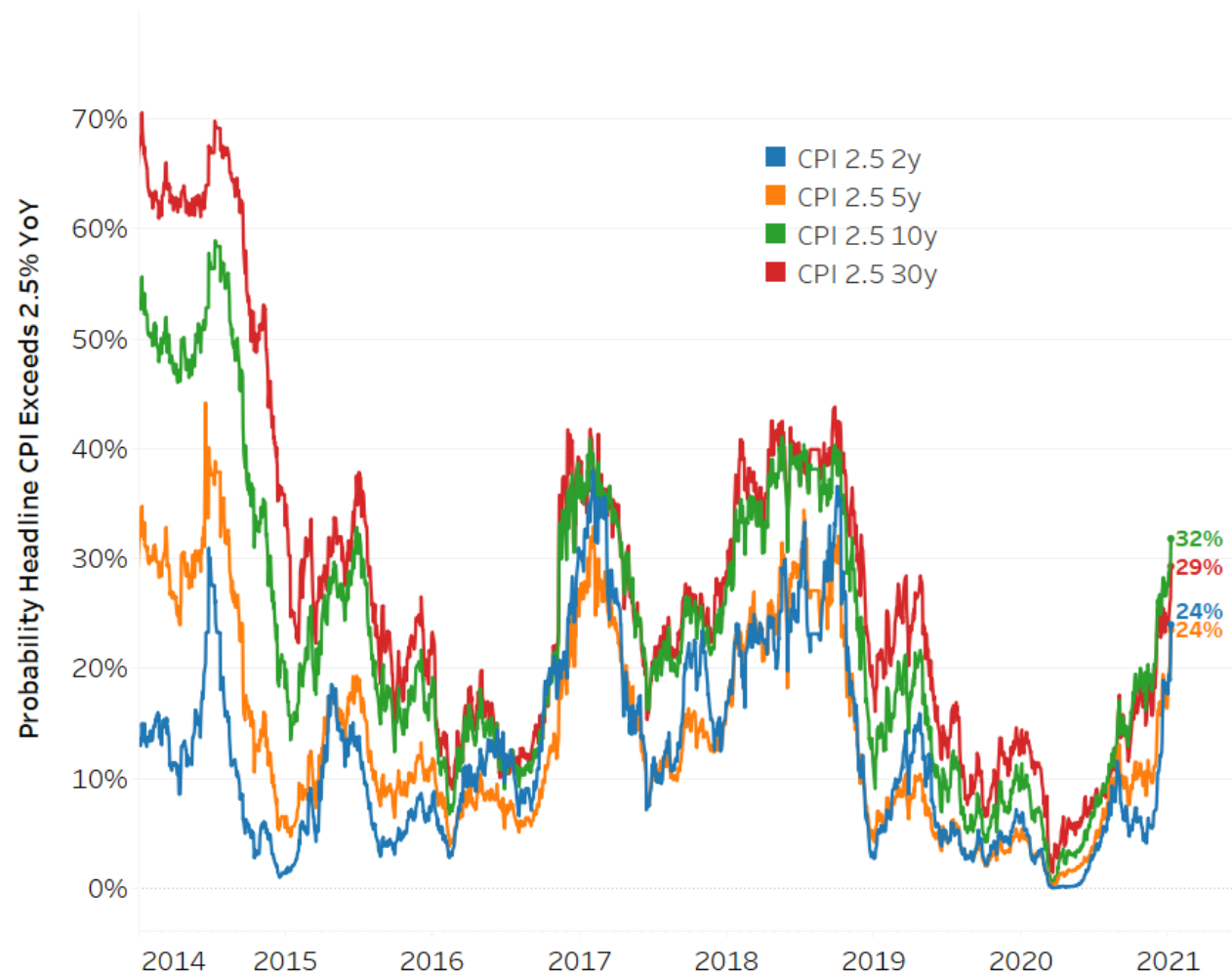
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Expectations for 2.5+% Headline CPI Finally Waking Up

Implied probabilities using inflation swap caps and floors with a strike CPI of 2.5% YoY

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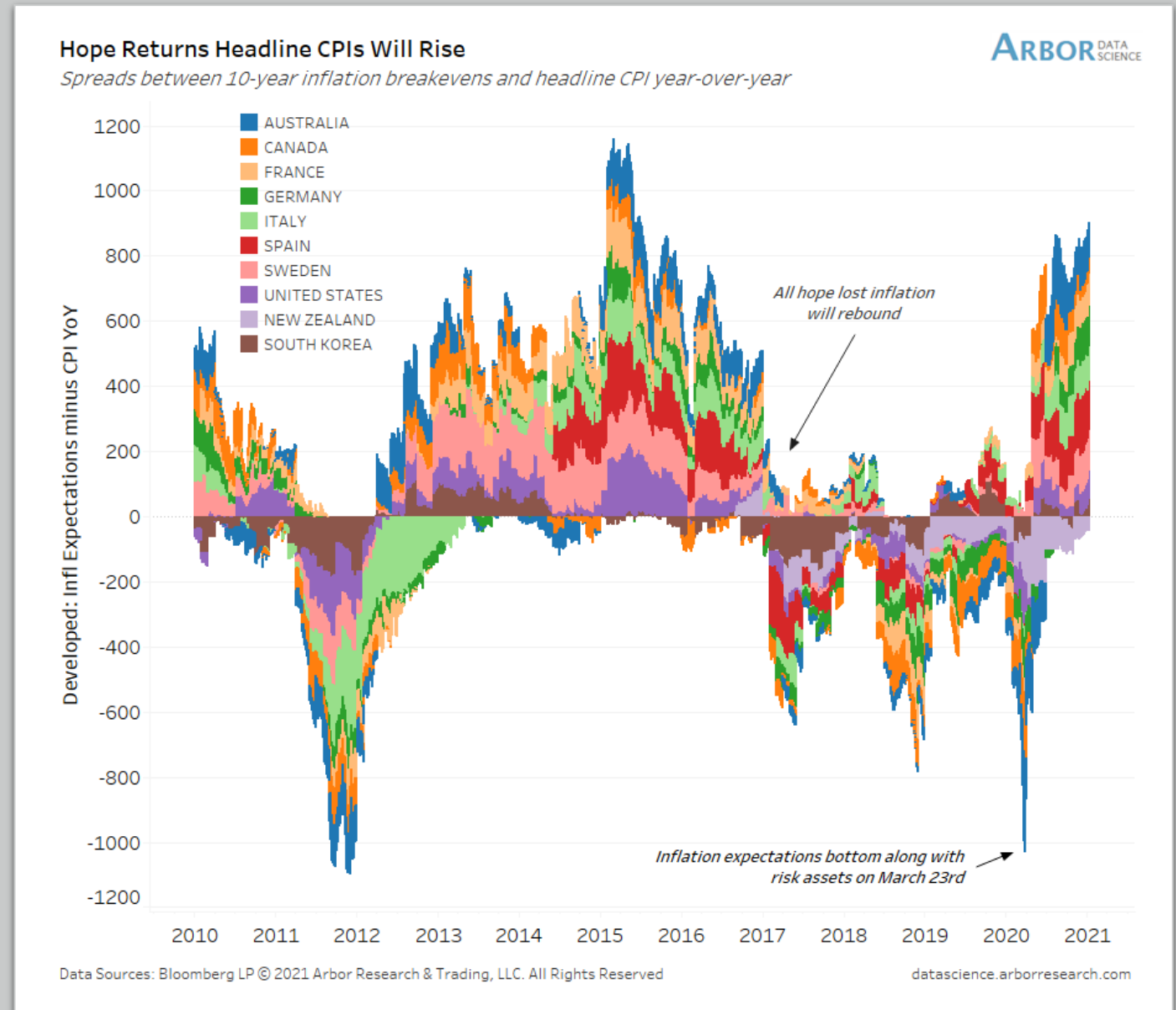
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Hopes for 2.5+% YOY Back on the Radar

- Inflation swap caps and floors reveal more optimistic views for inflation can overshoot.
- Charlie Evans opened the week suggesting 2.5% inflation needed to fulfill new AIT framework.
- Ultimately, 50+% probabilities will be needed to signal a lasting rise in core and headline inflation.

Inflation Hope a Global Phenomenon

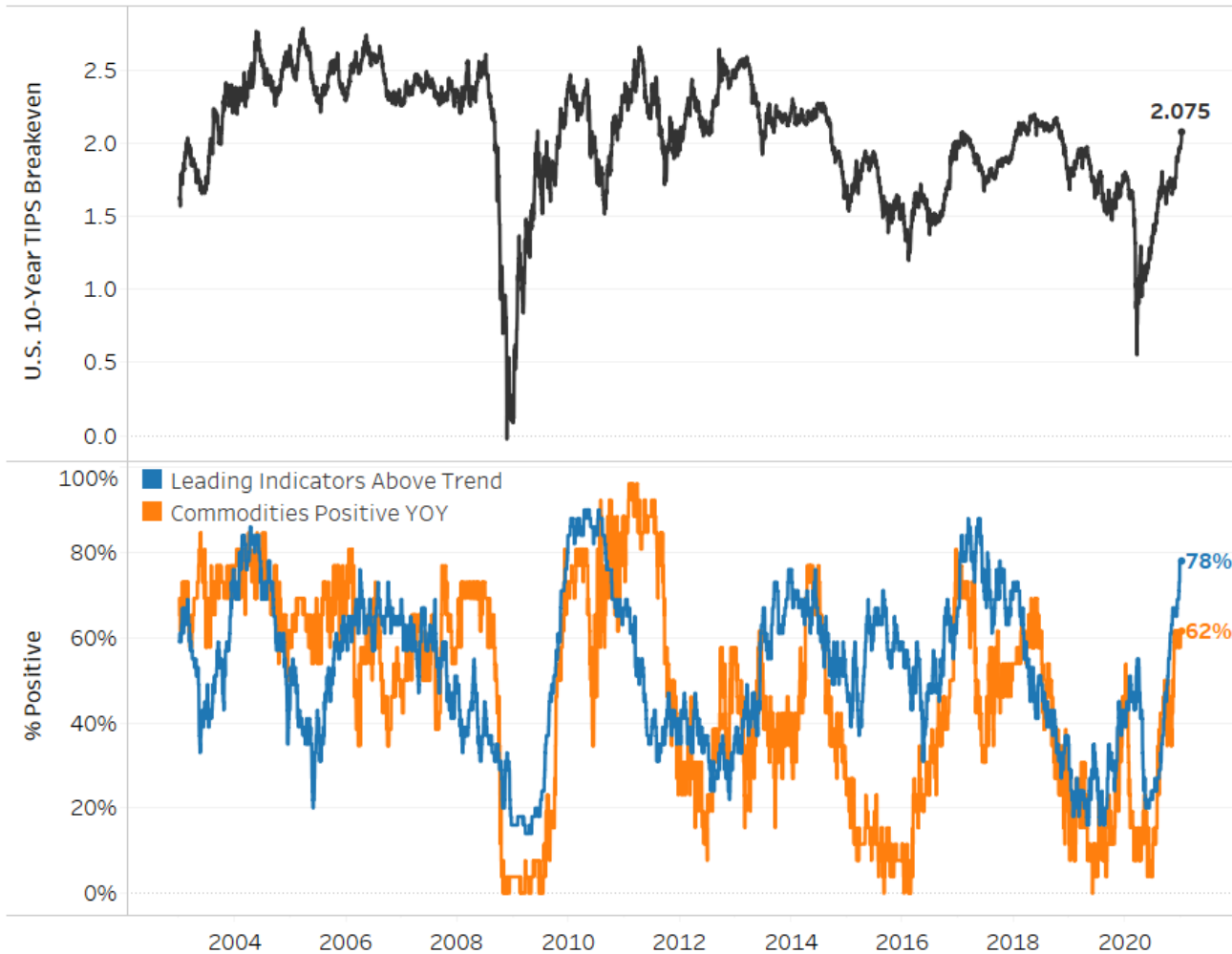
- Developed and emerging economies' 10-year inflation breakevens are both an average of ~100 bps ABOVE CPI YoY
- **Base effects alone** should close these gaps between inflation breakevens and headline CPIs by April 2021.



Global Synchronized Recovery a Boon to Inflation Expectations

Economic and market data growing above trend measured using OECD CLIs

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Global Synchronized Growth the Story of 2021!!

- Over 78% of the world's economies are producing economic data above one-year growth rates, the highest since global synchronized growth faded in early 2018.
- Over 62% of the world's commodities (ex-precious metals) are producing positive year-over-year returns.

Global Growth Potentially Entering Sweet Spot for Inflation

- Table shows U.S. 10-year TIPS breakevens' one-year changes given the % of economies with above trend leading indicators AND % of commodities producing positive YOY returns.
- Reaching 70+% of commodities producing positive YOY returns would fuel U.S. 10-year TIPS breakevens up only 31 bps YOY.

U.S. 10-Year TIPS Breakevens YOY Changes

Relative to Leading Indicators and Commodities Since 2003

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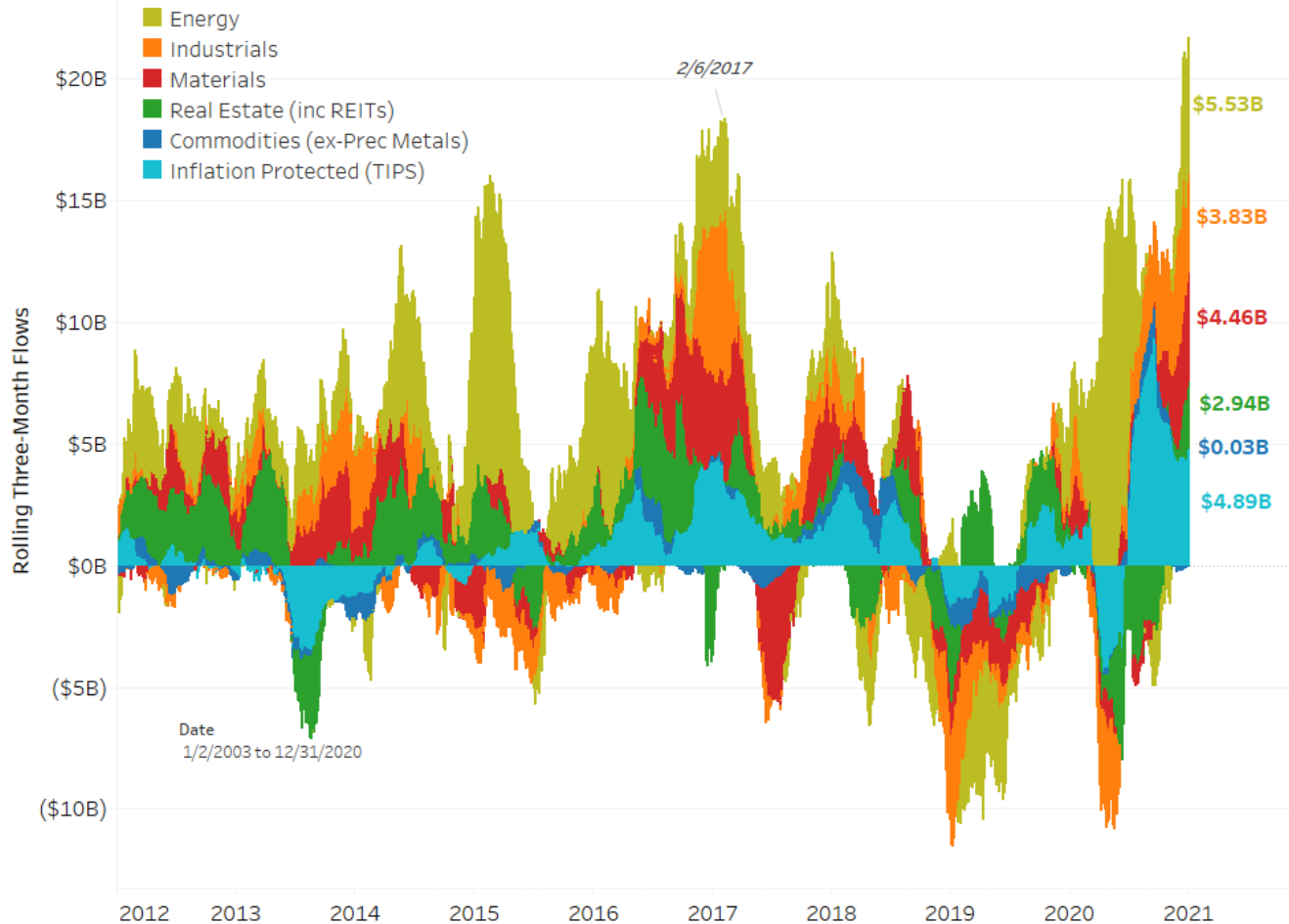
	% Positive Commodities YOY																			
	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
90%														72	40	91	45			
85%							1	2	21	17	20	22	41	46	112	102	90	-8	-11	
80%							13	27	20	23	18	-10	19	43	106	70	75			
75%							7	-17	-16	22	25	22	26	68	76	41	36	6	8	
70%	-60			-38	-33	-29	-11	-35	-27	2	10	36	105	29	62	75	71	22		
65%	-59	-54	-47	-36		-23	2	-10	-3	-14	-3	14	13	17	22	13	10	-2	1	-2
60%		-41	-34	-40	-40	-34	-23	-15	-9	3	1	-5	8	13	10	1	16	30	11	10
55%	-29	-22	-43	-32	-24	-33	-23	-15	-4	20	35	-4	0	16	24	12	17	27	32	24
50%	-37	-85	-53	-22	-21	-17	-25	-20	-14	11	7	22	16	12	22	49	24	21	26	21
45%	-38	-57	-42	-24	-34	-35	-13	-6	2	6	9	22	16	9	28	-23	21	20	12	
40%	-30	-48	-60	-38	-21	-24	-4	5	2	2	10	14	14	14	2	-24	23	48	53	
35%		-39	-35	-23	-24	-27	-8	10	12	18	28	8	-1	12	10	-25	10	35	47	
30%	-146	-55	-48	-29	-20	-3	11	44	18	13	24	-4	-8	2	1	31	42	17		
25%	-120	-44	-49	-50	-33	-20	11	14	-13	44	29	13								
20%	-103	-48	-42	-39	-27	-17	8	21		47	19	-33	-28	-35						
15%	-142	-62	-36	-38	-20															
10%	-94	-115																		

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ETF Flows: Inflation-Friendly Assets See Strongest Demand on Record

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Investors Positioning for Inflation

- Improving global growth coupled with stimulus have driven the heaviest flows on record into inflation-friendly ETFs.
- On the equity front, investors are opting for lower-beta risk-on opportunities to capitalize on rising prices via industrials and materials. We have preferred these sectors since summer thanks to China's speedier rebound and favorable search activity world-wide.
- Investors' flows into the global assets shown above and inflation-friendly assets shown below comprise just over 50% of all in-flows. In other words, just over half of all new investments are betting global growth quickly improves with inflation as the likely kicker.

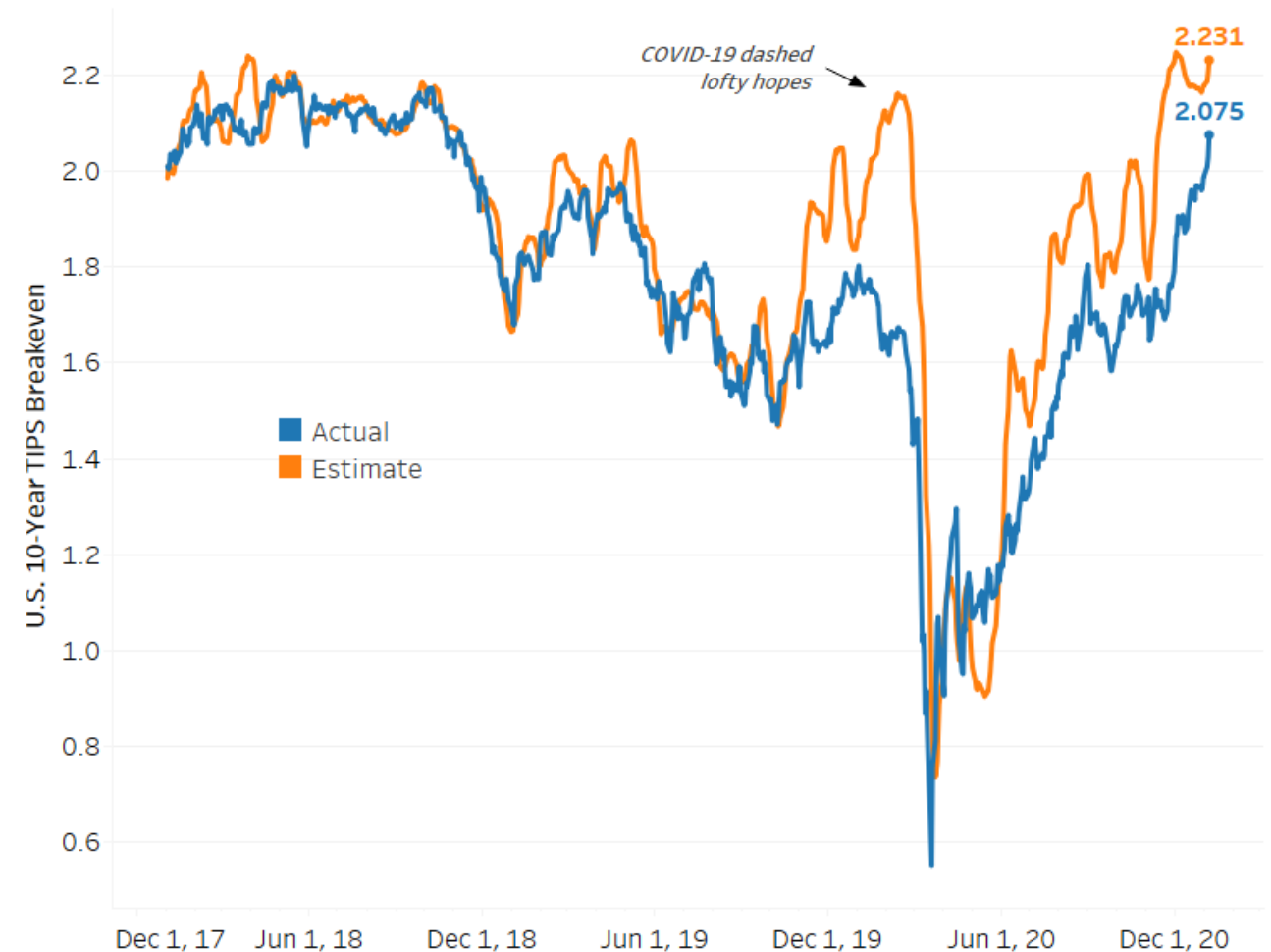
TIPS Breakevens Underperforming Where Risk Assets Suggest They Should Reside

- Model (SVM) explaining U.S. 10-year TIPS breakevens places fair value near 223 bps.
- Model uses WTI crude oil, copper, global implied volatility, liquidity, materials, USD, and FOMC rate timing.
- Getting above this fair value of sorts would suggest inflation expectations have become **too hot to handle**.

Where Do Risk Markets Say TIPS Breakevens Should Reside?

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Model trained Jan 2001-Mar 2020 using WTI, copper, global vol and liquidity, materials, USD, and FOMC rate timing



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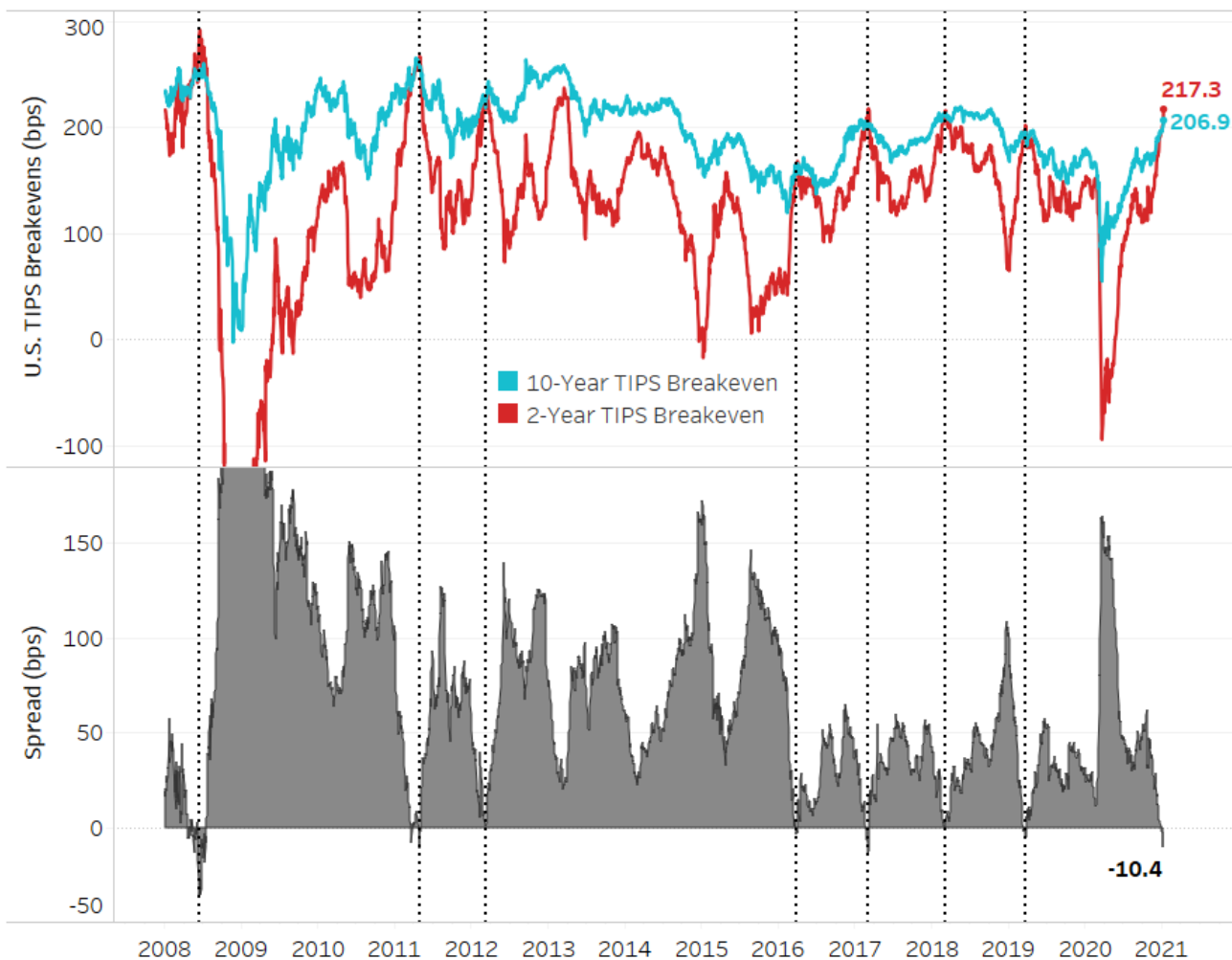
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U.S. 2-Year 10-Year TIPS Breakeven Curve Inverts

1/1/2008 to 1/6/2021

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Dashed lines mark troughs at or below zero basis points



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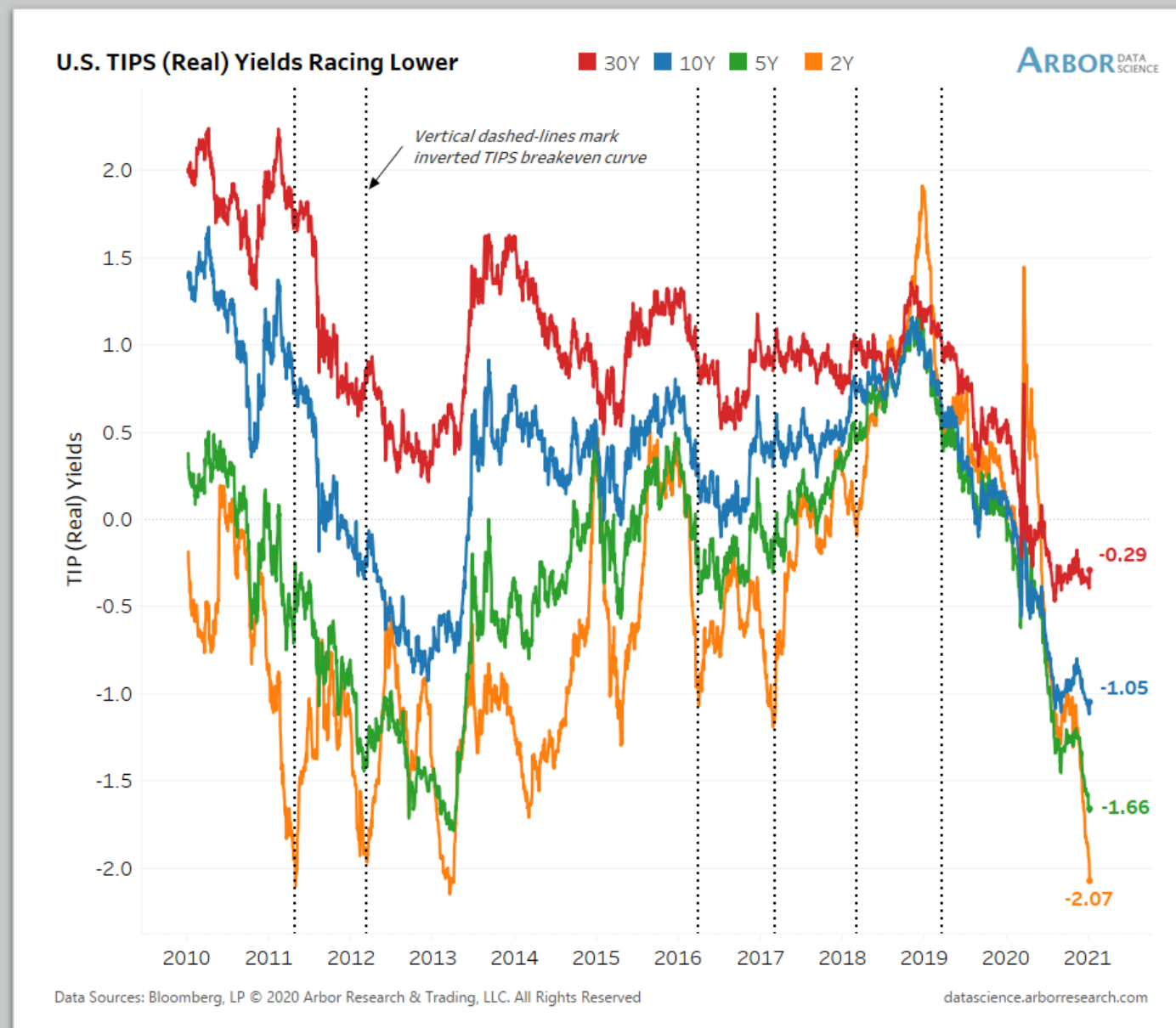
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Inflation Expectations Enter the Rare World of Inversion

- U.S. TIPS breakeven curve inversions have habitually marked the peak in inflation expectations.
- However this time could truly be different with the Federal Reserve refusing to turn hawkish under their new AIT framework.

Real Yields Plummet

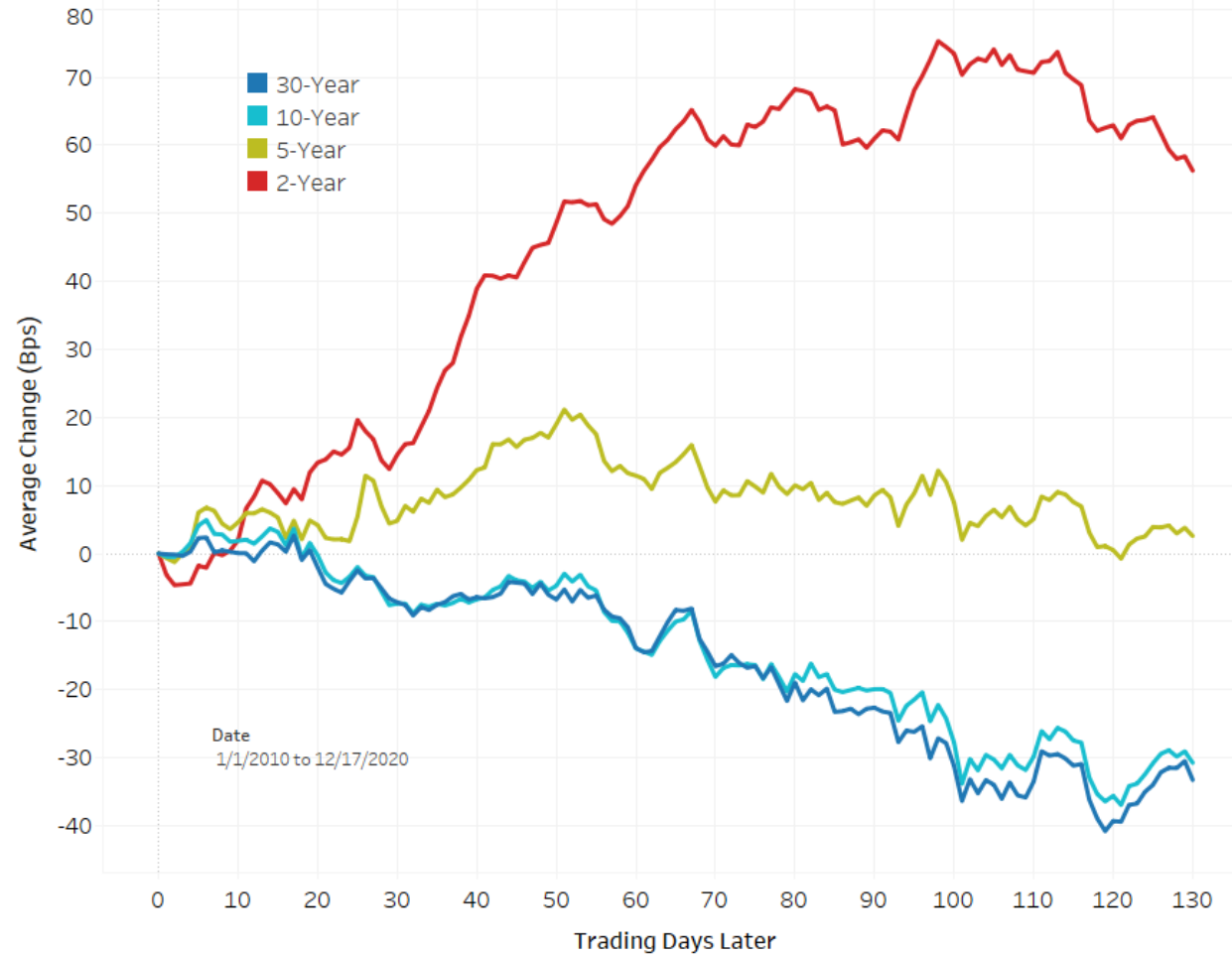
- Real (TIPS) yields are racing deeper and deeper into negative territory with the 10-year making a new all-time low to start the year.
- Short-end nominal Treasury yields' near lifeless condition above zero basis points has allowed the TIPS breakeven curve to easily invert.



U.S. TIPS (Real) Yields After 2Y10Y Breakeven Curve Becomes Flat (0 Bps)

Six instances since 2010

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Breakeven Curve Inversion Habitually Followed by Rising Short-end Real Yields

- The chart shows the average change in real (TIPS) yields following inversions since 2010.
- Short-end yields have shot higher, while long-end yields ground lower.
- The Federal Reserve's commitment to easy policy makes the dramatically rising red line below quite unlikely this time around.

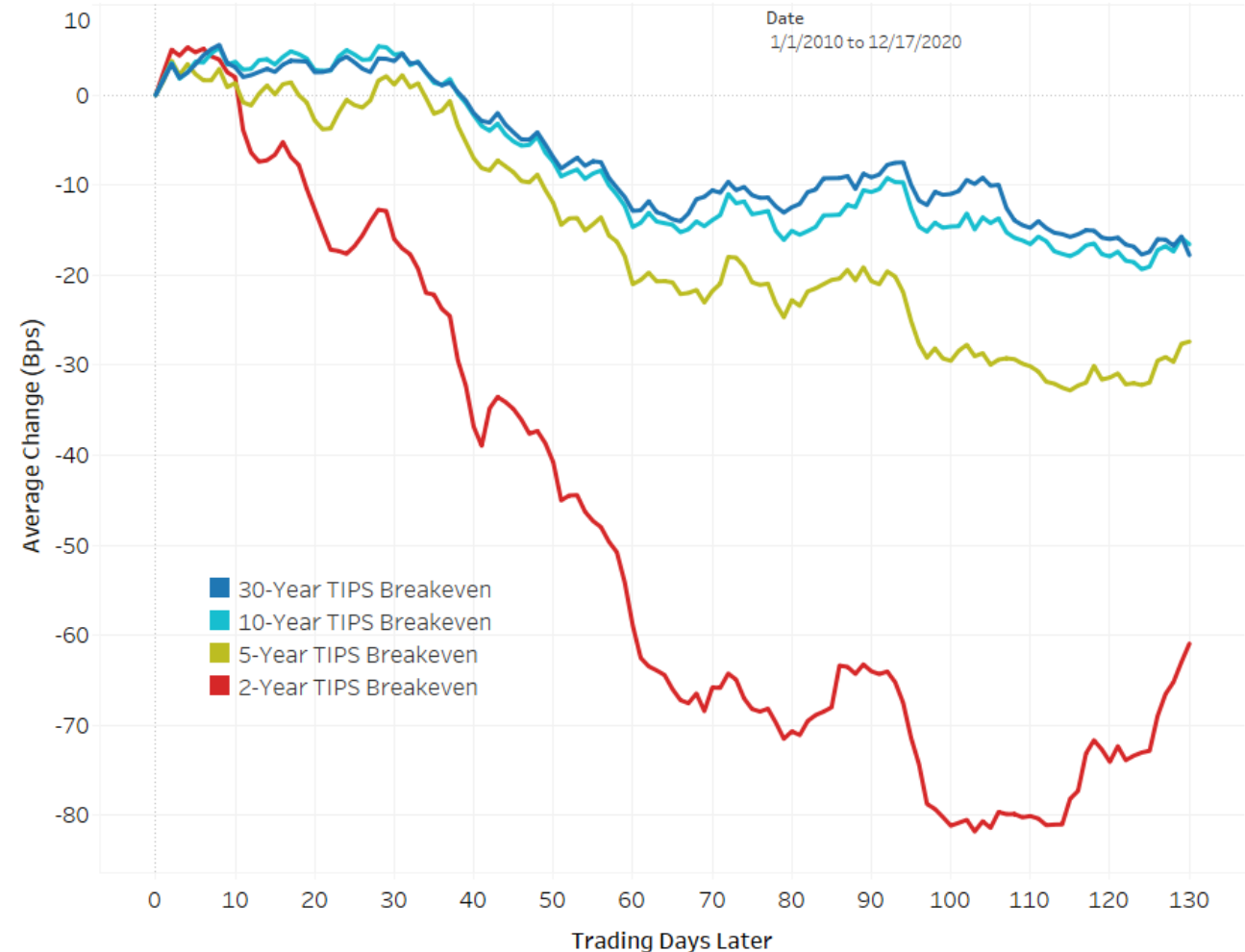
TIPS Breakevens Must Ignore History to Keep Widening

- The next chart below shows the average change in TIPS breakevens following inversions since 2010. Short-end inflation expectations nose-dive after base effects and/or transitory bursts in prices faded.
- We should know by mid February whether this time is different. U.S. 2-year TIPS breakevens have never remained wider 35 trading days after inversions first occurred.

U.S. TIPS Breakevens After 2Y10Y Breakeven Curve Becomes Flat (0 Bps)

Six instances since 2010

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