As of February 28, 2023

COMMENTARY

- We may be the only ones who still think the dovish pivot narrative is in play—or at least our models do—but it's true. While the gap remains extremely tight, we think that we remain in what we call a dovish narrative regime.
- It is important to remember that our language that guides our narrative models, especially our Radiant models, tend to focus on *prescriptive*, rather than *descriptive* language. That is, while Fed speeches and other language indicated hawkishness in February, the undercurrent of hope and preference on the part of market participants for continued dovishness remained strong. We tend to find this language describing "what should be" to be more predictive than language observing "what is."
- Elsewhere, while "Cheap" language remains the nature of much of any remaining bullishness, on a relative basis its dominance has declined, so much so that the relative rise in language describing assets as potentially overvalued is now contributing to our model's aggregate bearishness.
- Likewise, while bearish sentiment and recessionary fear remains part of the poly-narrative structure of financial markets coverage, it is no longer dominant in a way that our models view as bullish in its excess.
- The balance of these changes is to move our model to a very neutral position on risky assets.

SIGNAL VALUES AS OF FEBRUARY 28, 2023

SIGNAL CATEGORY	SIGNAL STATE	DIRECTION
Central Bank Policy	Dovish	Bullish
Stock Story Types	Fundamentals-Focused	Bearish
Cheap Narrative	Emerging Cheap	Bullish
Expensive Narrative	Neutral	Neutral
Cheap vs. Expensive	Emerging Cheap	Bullish
Fading Expensive Narrative	Neutral	Neutral
Rising Expensive Narrative	Neutral	Bearish (New)
Bullish Narrative	Neutral	Neutral
Bearish vs. Bullish	Neutral	Neutral (New)
Aggregate View		Neutral

As of February 28, 2023

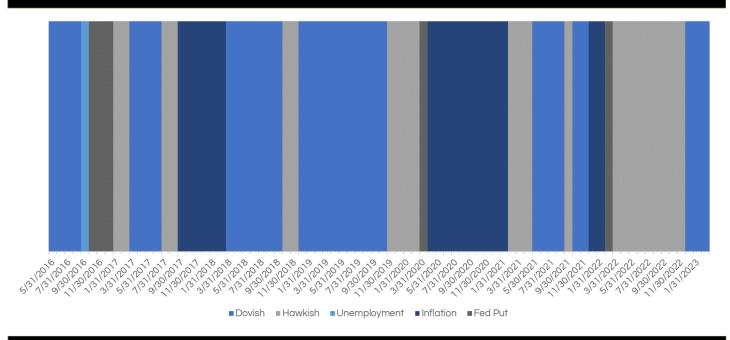
SIGNAL REFERENCE—CENTRAL BANK POLICY

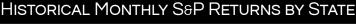
This model examines the Density and Narrative Strength / Attention of certain archetypal narratives relating to Central Bank Policy. We classify the dominant narrative among five such archetypes, which we believe reflect different states of common knowledge that both respond to and influence investor behavior. Present archetypes include Dovish, Hawkish, Inflation-Focused, Unemployment-Focused and Fed Put. Historical subsequent period results for directional S&P 500 exposure and historical states for the model are presented below.

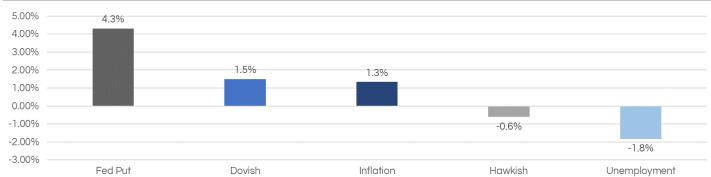
CURRENT STATE

Dovish (Bullish)

HISTORICAL SIGNAL TRIGGER PERIODS









As of February 28, 2023

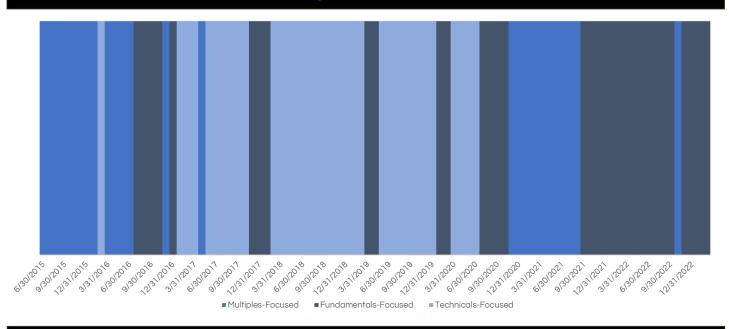
SIGNAL REFERENCE—STOCK STORY TYPES

This model examines the Density and Narrative Strength / Attention of certain linguistic archetypes of investment theses promoted in financial media and by sell side research houses. We think there are three such archetypes: multiples-focused, technicals-focused or fundamentals-focused. That is, analysts and commentators tend to describe why investments are attractive or unattractive using one or more of those linguistic sets. We think the market's varying tendency to frame investment outcomes in terms of each of these archetypes is indicative of risk appetites.

CURRENT STATE

FUNDAMENTALS-FOCUSED (BEARISH)

HISTORICAL SIGNAL TRIGGER PERIODS





As of February 28, 2023

SIGNAL REFERENCE—EXTREME CHEAP NARRATIVE

This model examines the Density and Narrative Strength / Attention of narratives describing the stock market in general as being inexpensive, cheap or a "good value." We believe that extreme values for these language patterns may be predictive of marginal investor buying behaviors and above average forward-looking excess returns for equity markets, sectors and individual securities. The signal indicates LONG S&P 500 exposure on an extreme value.

CURRENT STATE	EXTREME CHEAP (BULLISH)
HIST. DAILY SEP RETURN WHEN ACTIVE	0.28%



Most Recent >30 Day Triggers	ACTIVE PERIOD S&P RETURN	Ann. Active Period S&P Return
11/10/2022—Present	5.00%	17.56%
06/10/2022—8/12/2022	6.64%	44.32%
03/24/2020—05/14/2020	27.83%	460.27%
12/28/2018—03/14/2019	13.40%	81.46%

As of February 28, 2023

SIGNAL REFERENCE—EXTREME EXPENSIVE NARRATIVE

This model examines the Density and Narrative Strength / Attention of narratives describing the stock market in general as being expensive or overpriced. We believe that extreme values for these language patterns may be predictive of marginal investor selling behaviors and below average forward-looking excess returns for equity markets, sectors and individual securities. The signal indicates SHORT or REDUCED S&P 500 exposure on an extreme value.

CURRENT STATE	NEUTRAL
HIST. DAILY S&P RETURN WHEN ACTIVE	0.00%

HISTORICAL SIGNAL	TRIGGER PERIODS
11 11 12 12 12 12 13 13 13 13 13 14 4 4 4 4 4 4 4 4 4 4 4	8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9
1/1/2011 8/20/2011 11/5/2011 1/21/2012 1/21/2012 6/23/2012 9/8/2012 2/9/2013 4/27/2013 3/1/2013 3/1/2014 5/17/2014 1/3/2014 1/3/2014 1/3/2014 1/3/2016 6/6/2016 6/2/2016 1/3/2016	4.71,201, 4.79,2017 7,15,2017 3/3,2018 5/19,2018 10/20,2018 10/20,2018 10/20,2018 11/9,2019 11/26,2020 6/27/2020 6/27/2020 6/27/2020 11/28/2020 2/13/2021 5/1,2021 10/22,2022 8/6,2022 8/6,2022 10/22/2022

Most Recent Triggers	ACTIVE PERIOD S&P RETURN	Ann. Active Period S&P Return
09/04/2020—11/04/2020	-0.13%	-0.75%
02/25/2020—03/20/2020	-28.42%	N/A
03/14/2018—04/02/2018	-6.56%	-71.01%
10/12/2016—11/07/2016	-0.14%	-1.85%

As of February 28, 2023

SIGNAL REFERENCE—CHEAP VS. EXPENSIVE

This model examines the relative deviation of the Density and Narrative Strength / Attention of narratives describing the stock market as being cheap and expensive, respectively, relative to their historical norms. In short, we believe that the *relative dominance* of cheap archetypal language over expensive archetypal language may be predictive of investor risk-taking behaviors above and beyond the raw value of the density and influence of cheap language itself. The signal indicates LONG or INCREASED S&P 500 exposure on an extreme value differential in favor of Cheap language.

CURRENT STATE	EMERGING CHEAP (BULLISH)
HIST. DAILY S&P RETURN WHEN ACTIVE	0.16%



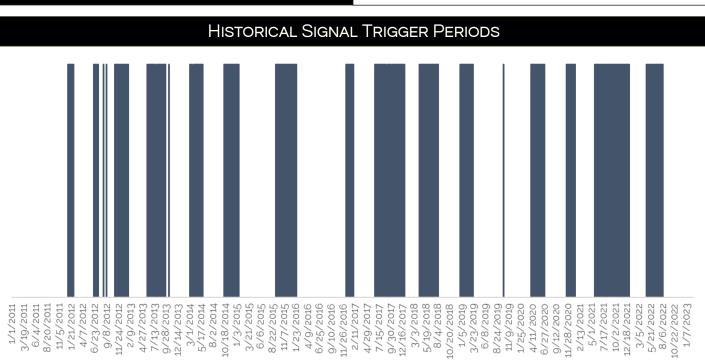
Most Recent >30 Day Triggers	ACTIVE PERIOD S&P RETURN	ANN. ACTIVE PERIOD S&P RETURN
05/13/2022—Present	0.02%	0.03%
04/08/2020—06/05/2020	20.53%	217.34%
12/26/2018—03/29/2019	21.23%	111.15%
01/19/2016—04/13/2016	11.38%	58.01%

As of February 28, 2023

SIGNAL REFERENCE— FADING EXPENSIVE NARRATIVE

This model examines the rate of change of the Density and Narrative Strength / Attention of narratives describing the stock market as being expensive. In short, we believe that sharp rates of change in the use of archetypal language in favor of cheapness may be predictive of investor risk-taking behaviors above and beyond the raw value of the density and influence of cheap language itself. The signal indicates INCREASED S&P 500 exposure on a rapid shift away from Expensive archetypal language.

CURRENT STATE	NEUTRAL
HIST. DAILY SEP RETURN WHEN ACTIVE	0.11%



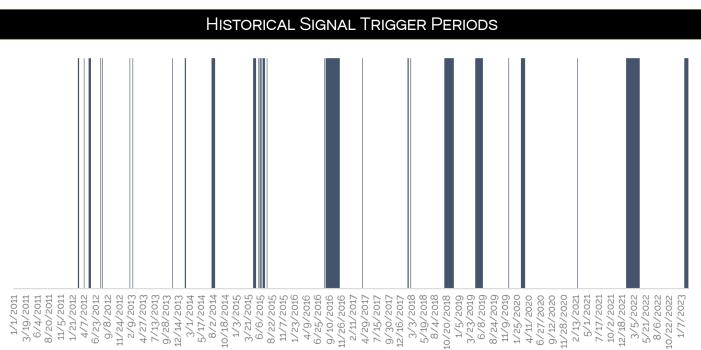
Most Recent >30 Day Triggers	ACTIVE PERIOD S&P RETURN	Ann. Active Period S&P Return
04/27/2022—8/11/2022	1.18%	4.07%
05/24/2021—01/04/2022	16.38%	27.91%
11/20/2020—01/14/2021	6.22%	48.16%
04/06/2020—06/29/2020	23.24%	145.33%

As of February 28, 2023

SIGNAL REFERENCE— RISING EXPENSIVE NARRATIVE

This model examines the rate of change of the Density and Narrative Strength / Attention of narratives describing the stock market as being expensive. In short, we believe that sharp rates of change in the use of archetypal language in favor of cheapness may be predictive of investor risk-taking behaviors above and beyond the raw value of the density and influence of cheap language itself. The signal indicates REDUCED S&P 500 exposure on a rapid shift toward Expensive archetypal language.

CURRENT STATE	RISING (BEARISH) - NEW
HIST. DAILY S&P RETURN WHEN ACTIVE	-0.04%



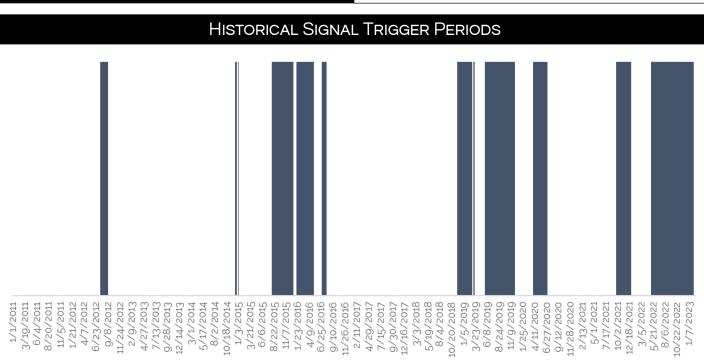
Most Recent >30 Day Triggers	ACTIVE PERIOD S&P RETURN	Ann. Active Period S&P Return
01/18/2022—4/13/2022	-3.77%	-15.06%
02/26/2020—03/20/2020	-26.19%	N/A
05/02/2019—06/18/2019	0.14%	1.08%
10/09/2018—12/08/2018	-8.36%	-41.21%

As of February 28, 2023

SIGNAL REFERENCE—BEARISH VS. BULLISH

This model examines the relative deviation of the Density and Narrative Strength / Attention of narratives describing using the tropes and linguistic patterns of bullish and bearish archetypes, respectively, relative to their historical norms. We believe that the *relative dominance* of bearish over bullish archetypes may be indicative of a narrative structure saturated by pessimism in ways that create upside asymmetry to individual assets and risky assets more broadly. The signal indicates LONG or INCREASED S&P 500 exposure on an extreme value differential in favor of Bearish language.

CURRENT STATE	Neutral (New)
HIST. DAILY S&P RETURN WHEN ACTIVE	0.11%



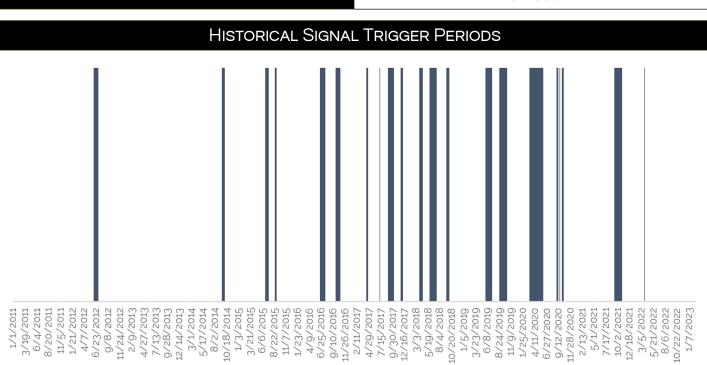
Most Recent >30 Day Triggers	ACTIVE PERIOD S&P RETURN	Ann. Active Period S&P Return
05/10/2022—Present	0.40%	0.53%
09/27/2021- 12/29/2021	7.96%	34.62%
04/06/2020—07/02/2020	26.38%	164.11%
05/29/2019—12/06/2019	12.74%	25.61%

As of February 28, 2023

SIGNAL REFERENCE—BULLISH NARRATIVE

This model examines the rate of change of the Density and Narrative Strength / Attention of narratives describing bull cases for individual assets or the market in general. We believe that bull case language tends to gain influence after the case has been demonstrated in market performance—thus, it is the relative absence of bull case narratives that we expect to be moderately predictive of above average returns. The signal indicates INCREASED S&P 500 exposure on a low density/influence of Bullish archetypal language.

CURRENT STATE	NEUTRAL
HIST. DAILY S&P RETURN WHEN ACTIVE	0.16%



Most Recent >30 Day Triggers	ACTIVE PERIOD S&P RETURN	Ann. Active Period S&P Return
09/15/2021—11/03/2021	4.36%	39.25%
03/13/2020—06/05/2020	29.39%	202.32%
08/30/2019—10/15/2019	2.58%	21.87%
05/31/2019—07/12/2019	8.33%	97.22%