



Epsilon Theory Professional Monitors Update

August 2020

Welcome to the Webinar! We will begin promptly at 2 pm EDT.

This presentation is being recorded for future playback, and all participant phone lines have been muted. If you would like to ask a question in the Q&A session after our prepared remarks, please email me at any time during the presentation at ben.hunt@epsilontheory.com so that we can unmute your line.

Disclaimers

This presentation is intended only for institutional use, and for the sole use by the individual or institution to which it was provided. It may not be forwarded, copied or otherwise distributed to other parties.

Relying on the strategies and signals described in this presentation are risky. They concern investments in financial markets with substantial risk of loss. They rely upon new techniques based on natural language processing which may be riskier than traditional investment analysis. There is no guarantee that any investment made on the basis of these signals or strategies will be successful, that your portfolio will outperform any index, or that you will not experience substantial loss. Even if historical performance of any signal, model or strategy is positive, you should be aware that past performance is not indicative of future results.

You should be certain that these risks and the potential volatility associated with them are right for you and appropriate for your portfolio before making the decision to invest.

This presentation makes no recommendations to buy or sell any security.

Refresher:

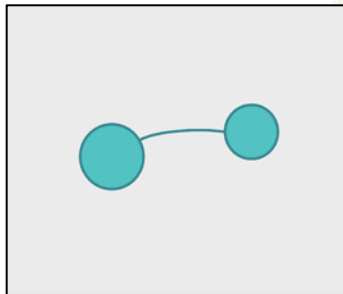
How we measure narrative structure

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- + Foundation
- + Partners
- + LLC

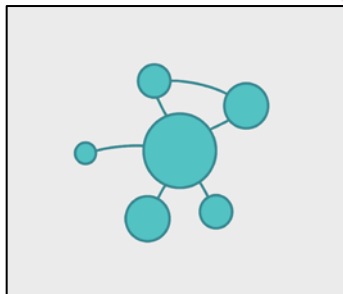
Narrative Research is Natural Language Processing (NLP)



Parse an unstructured text or transcript for words and phrases.



Compare each word and phrase in one unstructured text to each word and phrase in another text, creating a matrix of the linguistic relationship between the two texts.



Repeat the process at immense scale across thousands of documents.

CASE: Cohesion, Attention, Sentiment & Engagement

Our research analyzes publicly-sourced financial media to identify and measure the structure of narratives before and as they begin to influence financial markets.

>20 million articles annually from >32,000 sources

Identifying Narratives

- Identify key narrative-influenced topics on index-tradable dimensions (e.g. sectors, companies, countries, factors)
- Define universe of sources, fixed structure of queries to isolate topic
- Use established Natural Language Processing similarity-based clustering techniques to identify deep similarities in language used about a topic.

Measuring Narratives

Cohesion: Internal influence of narrative on topic

Attention: External influence of narrative on topic

Sentiment: Positive or negative language

Engagement: non-Missionary social media forwarding

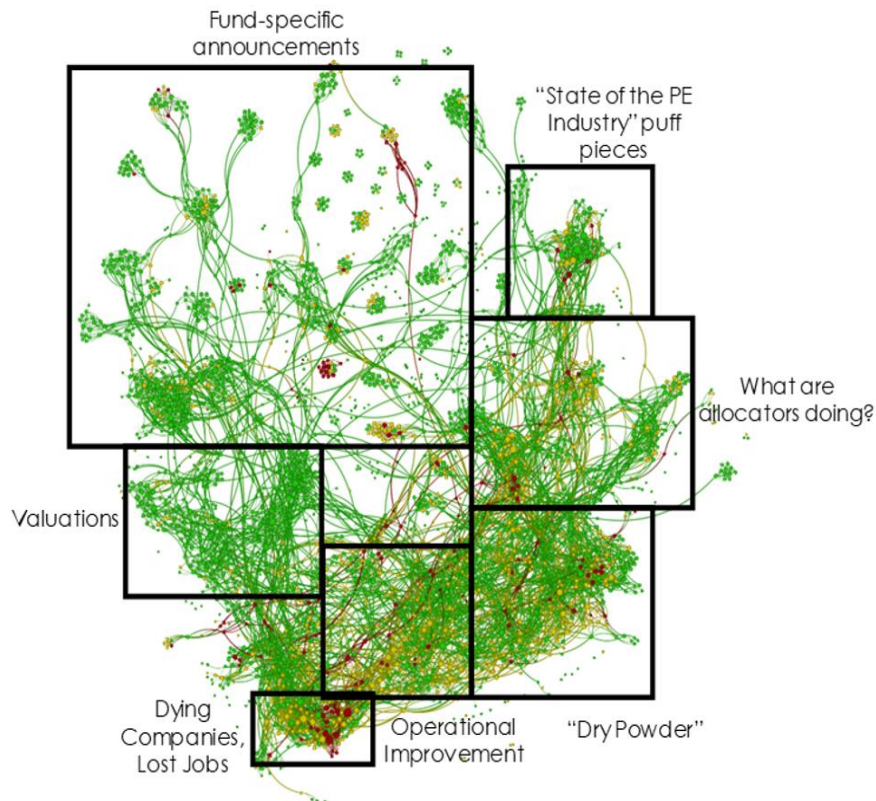
Connecting Narratives to Markets

- Derive direction predictive connections between states of Cohesion/Attention/Sentiment/Engagement (CASE) and market structure, money flows, trend formation and price movement more directly.
- Systematically generate views on securities, sectors and asset classes based on established CASE->Price transmission mechanisms.

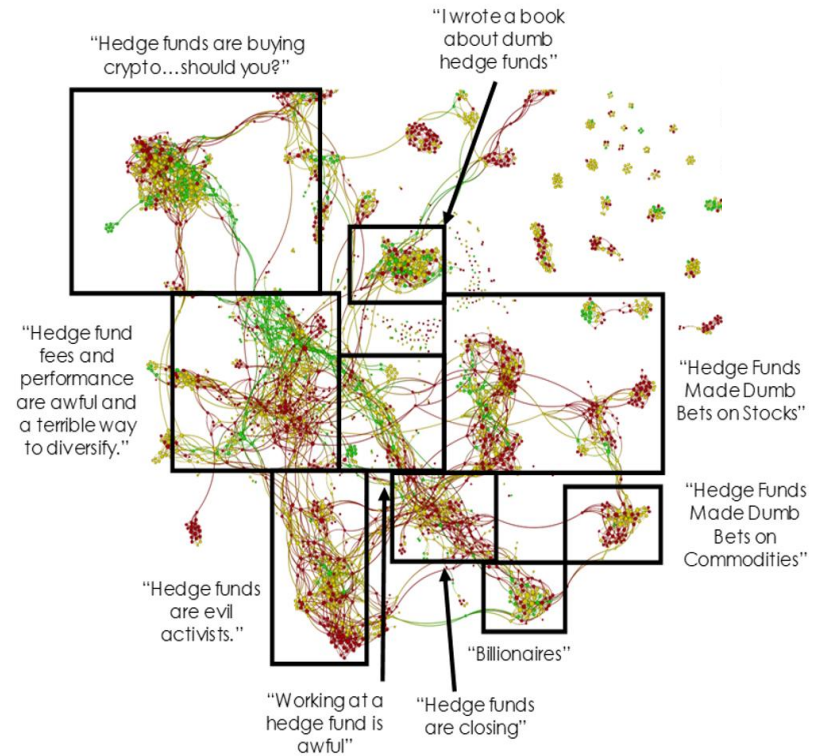
We Go Beyond Sentiment and Social Media

Sentiment and social media engagement are properties of each individual node. They are conditioners of narrative, not structural components of narrative.

Private Equity Narrative



Hedge Fund Narrative

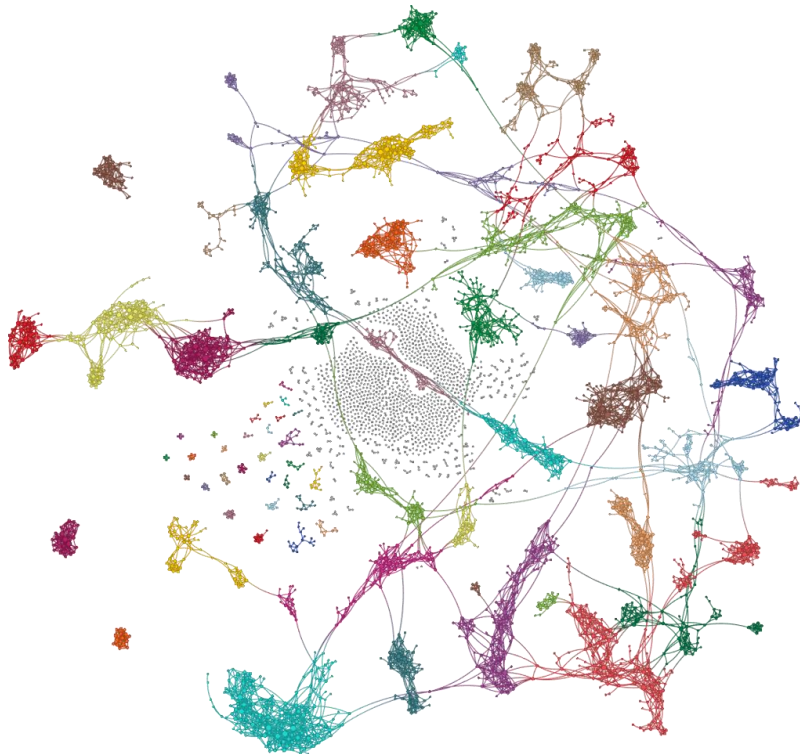


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Narrative Structure: Cohesion

Cohesion is the connectedness and “center of gravity” of a single narrative, relative to itself over time

Trade and Tariffs
Jan – Nov 2018



Trade and Tariffs
Dec 2018 – July 2019



VS.

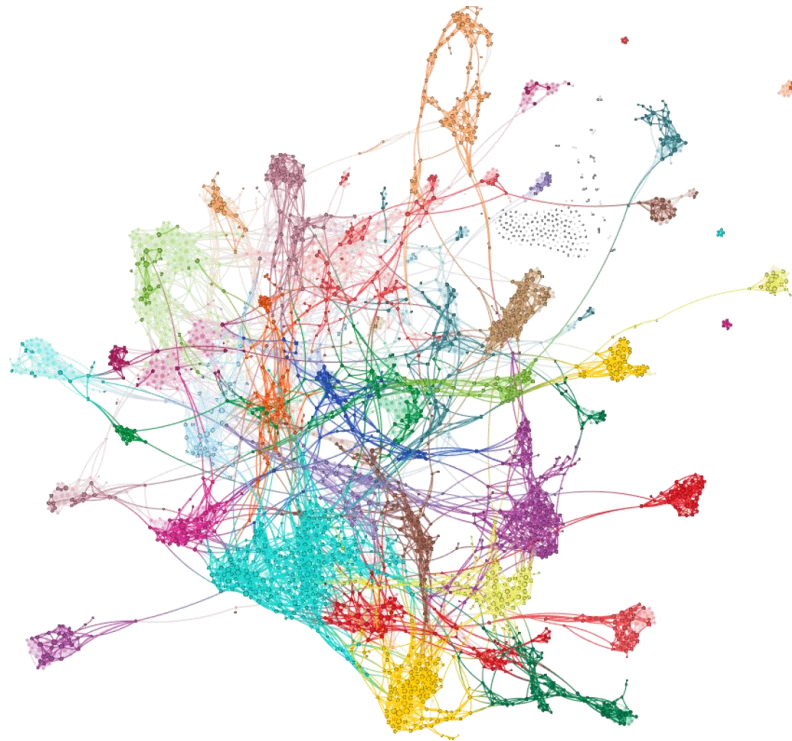
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Source: Quid, Inc., Second Foundation Partners, LLC
For illustrative purposes only. Individual nodes represent articles in Quid, Inc. news database. Lines indicate cluster analysis-based proximity. Colors represent NLP-based cluster.

Narrative Structure: Attention

Attention is the connectedness and “center of gravity” of one narrative relative to all the other narratives in a media universe at a given point in time.

Trade and Tariffs within Stock Market Media
August 2019



US Fiscal Policy within Stock Market Media
August 2019



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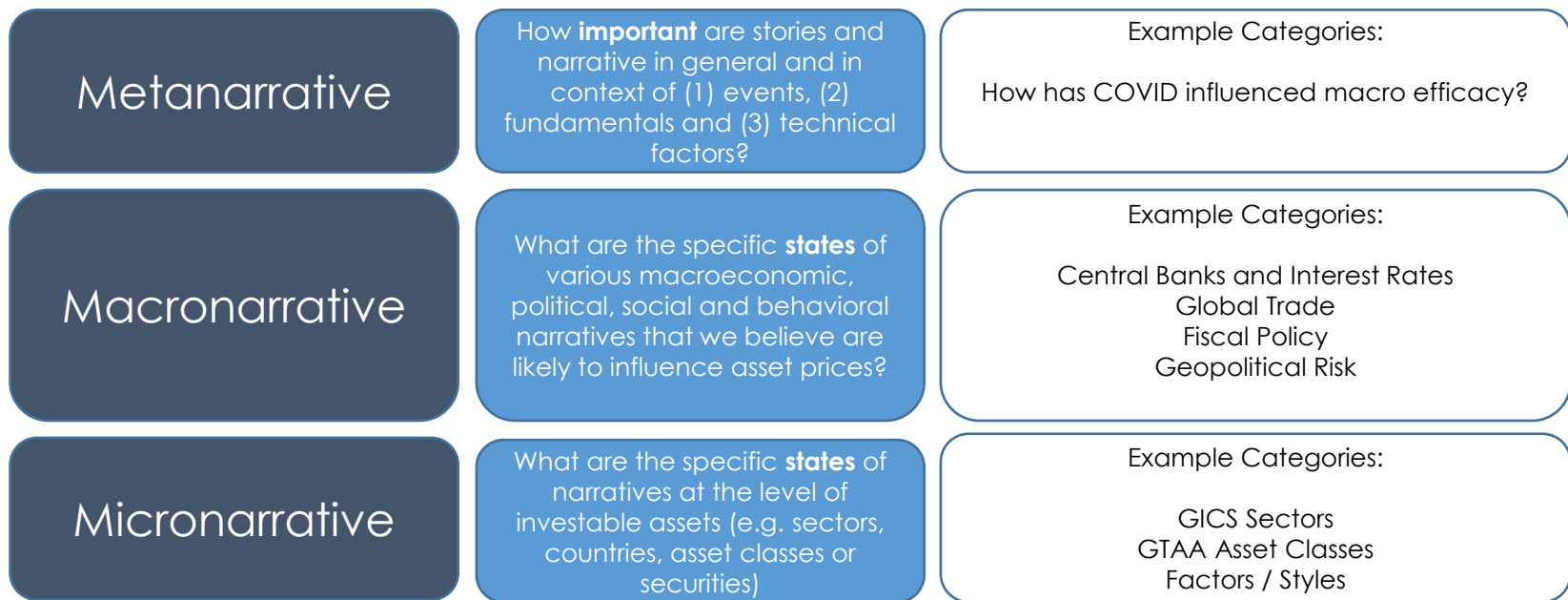
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ET Professional Monitors:

Putting Narrative Measures in Actionable Context

The New ET Professional Monitors Framework

Our framework is a novel methodology which (1) defines narrative **states** of three main types of narratives, (2) normalizes their values to be interpretable and comparable and (3) identifies potentially relevant historical relationships between those states and asset class returns



Our Newest Report: Security Analysis Methods

Our Hypothesis: Market narratives – and in a mutually reinforcing cycle, market participants - tend to emphasize and focus on certain characteristics of securities and asset classes. These different narratives should influence cross-sectional volatility and potentially asset class returns.

Our Framework: We created three archetypes to represent these high-level classes of focus:

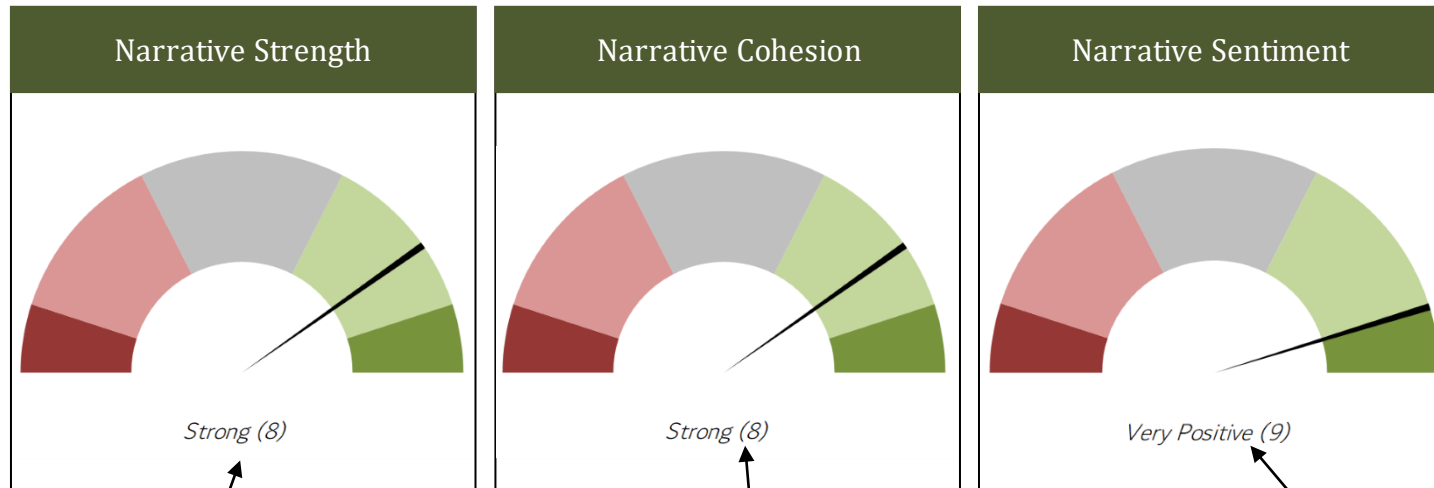
- **Fundamentals Focus:** Market stories rely disproportionately on the language of revenue trajectories, earnings surprises, beats and disappointments, as well as fundamental macro factors (e.g. GDP, employment, etc.)
- **Technicals Focus:** Market stories rely disproportionately on the language of momentum, trend and recent price performance.
- **Multiples Focus:** Market stories rely disproportionately on the language of multiples, expensiveness, cheapness, valuation, relative price and “attractiveness.”

Our Findings: We think that we have identified a useful, consistent, intuitive and potentially predictive framework for identifying the dominant narrative among these archetypes.

Interpreting the Report

Each report will identify a single dominant **state** of a narrative based on text data from the immediate prior month. This is based on the **Narrative Strength** measure.

Dominant Narrative Structure for August 2020 *Fundamentals-Focused Regime*



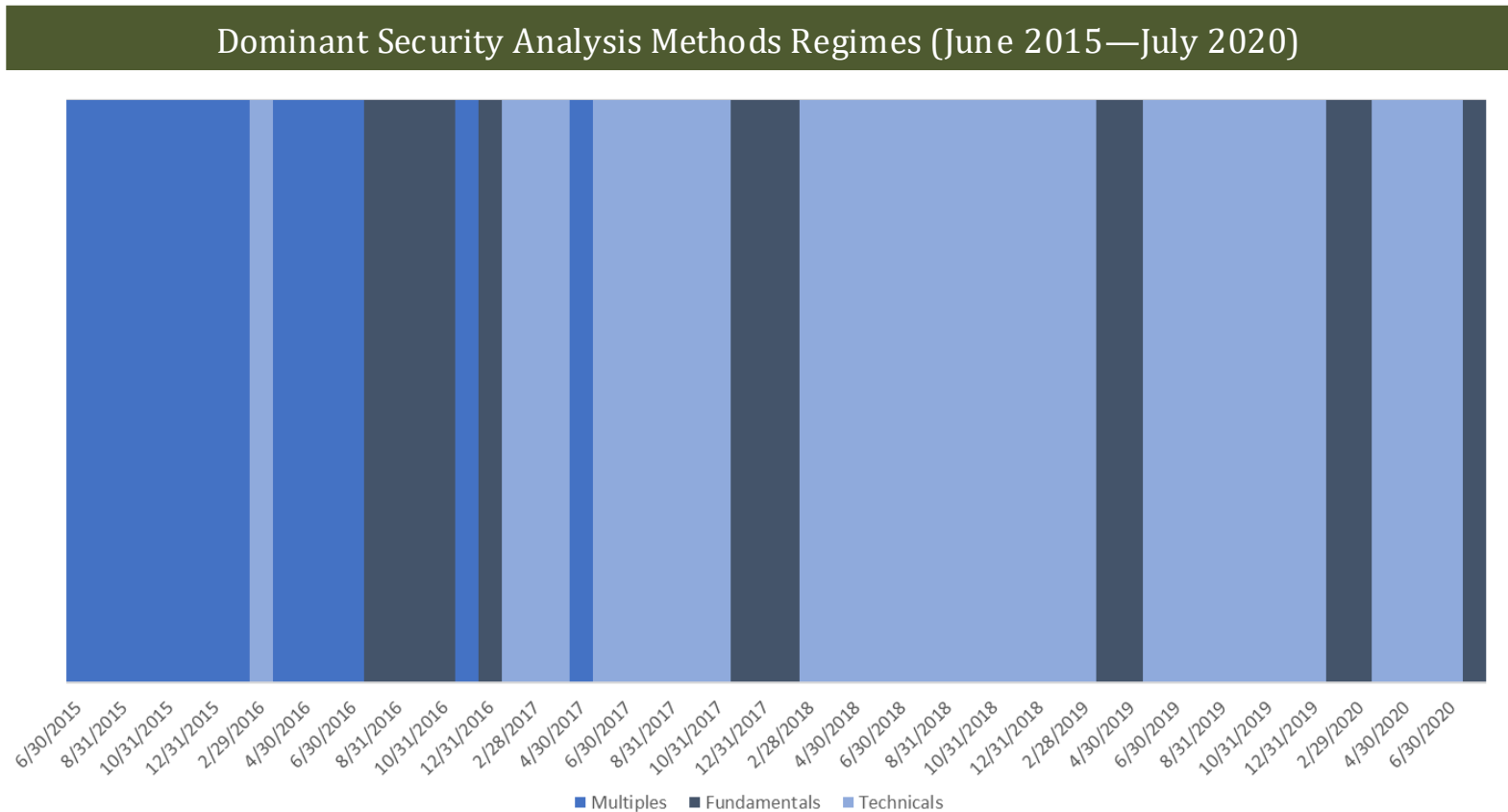
Narrative Strength is normalized on a 0-10 scale and is a composite of Attention and Volume measures that seeks to capture the influence of the dominant narrative state – here “Fundamentals-Focused Regime” for the Security Analysis Methods narrative structure

Narrative Cohesion is similarly normalized on a 0-10 scale and is otherwise unchanged from prior versions. It measures the internally consistency of the language of the referenced narrative state.

Narrative Sentiment is also now normalized on a 0-10 scale and references the sentiment specific to the dominant narrative state for this period.

Interpreting the Report

Each report will show the historical regimes for the category as defined by the dominant narrative state in that period, which can also serve to provide historical analogs



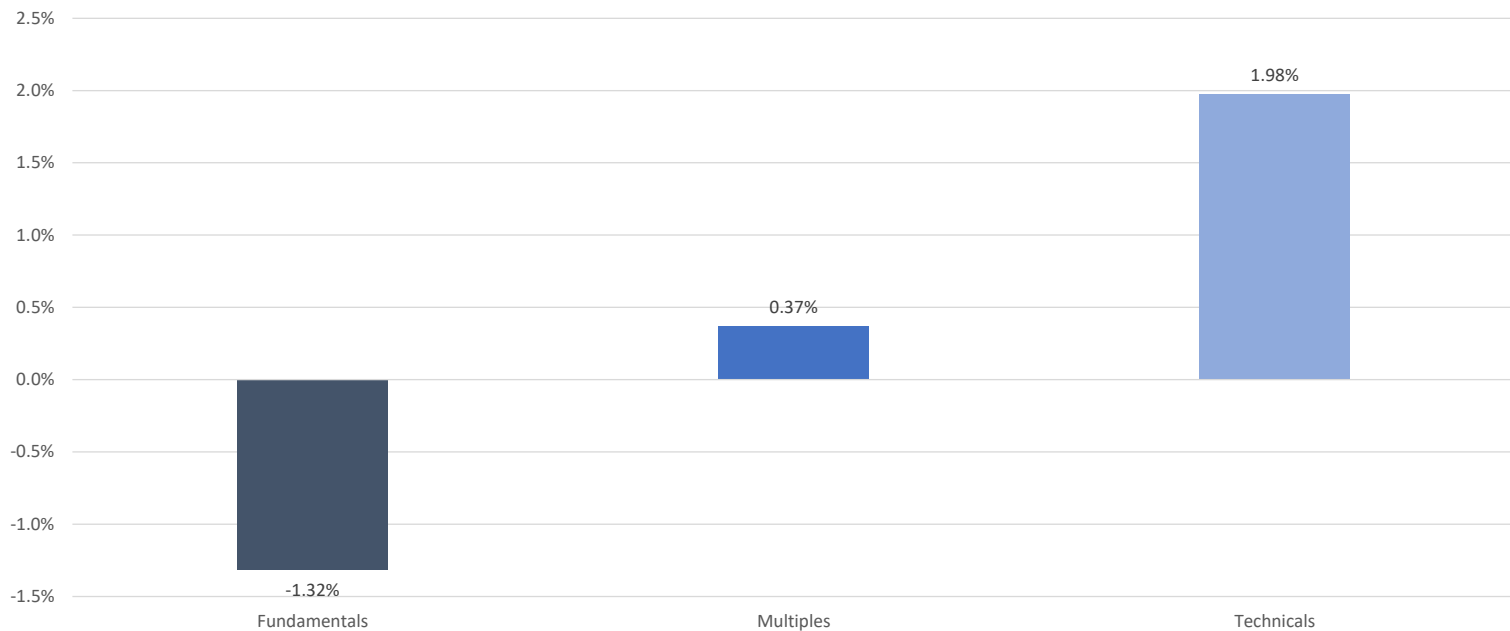
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Source: Second Foundation Partners, LLC
For illustrative purposes only.

Interpreting the Report

When we think it is relevant and reasonable to do so – which means when there is a sensible theoretical relationship between the regime and asset class behaviors – the report may include one or more historical relationships between *subsequent* asset class returns and prior period states

For example, the below table from our Security Analysis Methods report shows the historical relationship between each defined dominant narrative state and S&P 500 returns over the following month



Interpreting the Report

While most of the report is defined in terms of the identified dominant state, it also provides the corresponding normalized measures for each of the other regime types

In this case, our models indicated that the Fundamentals-Focused narrative structure was meaningfully stronger than the other two potential regime states going into August

Narrative Structure Measures by Archetype			
	Strength	Cohesion	Sentiment
Fundamentals-Focused	Strong (8)	Strong (8)	Very Positive (9)
Multiples-Focused	Average (5)	Very Weak (1)	Very Positive (8)
Technical-Focused	Average (6)	Strong (8)	Very Positive (8)