# **Ned Davis Research**

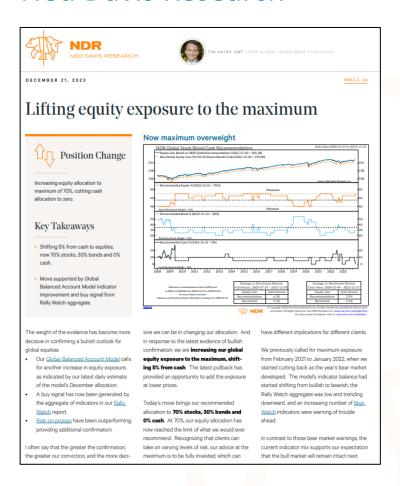
**Future Trends in Developed Capital Markets** 

#### **Kevin Bates**

**Product Specialist** 



#### **Ned Davis Research**



#### **NDR Subscriptions**

- Market commentary and recommendations
- Platform of charts, indicators and models
- Global multi-asset coverage

#### **NDR Investment Solutions**

- Direct access to NDR's TAA models
- Tailored model portfolios
- Expand your product offering and AUM



## Agenda

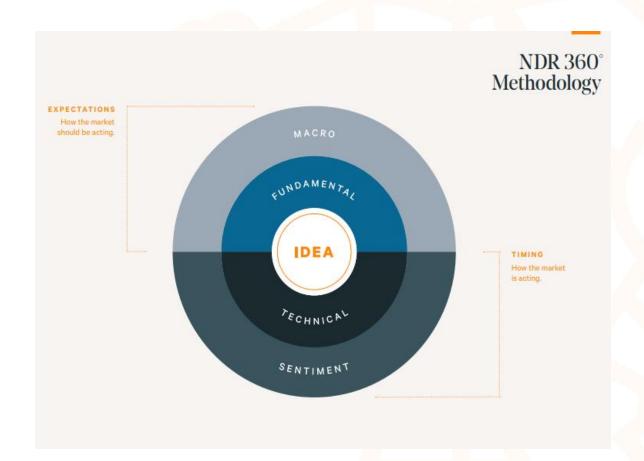
- NDR's investment approach
- Macro vs. 60/40 portfolios
- Modeling developed markets
- Future development
  - Alternative Data
  - > Al Implementation
  - > Thematic investing
- Combining quant signals with human expertise

# Ned Davis An early adopter of technology





### Ned Davis "Weight of the evidence" approach



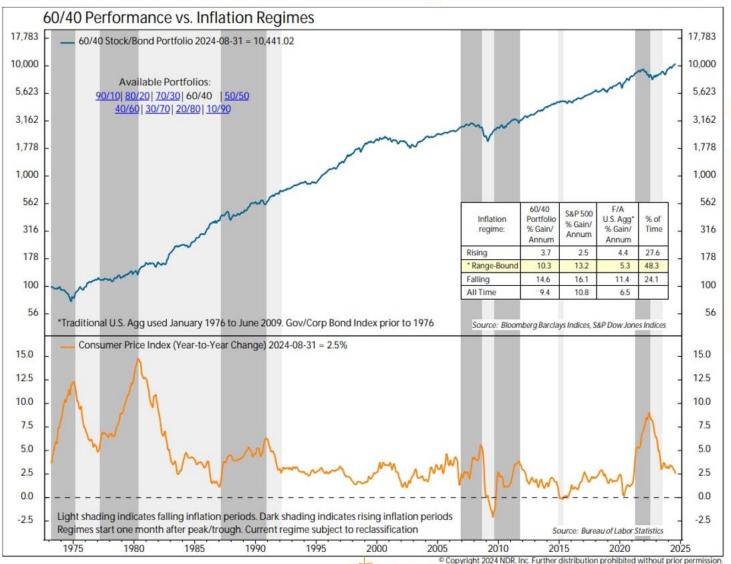
"We are in the business of making mistakes. Winners make small mistakes, losers make big mistakes. Focus on risk management to keep mistakes small."



Ned Davis

NDR's Founder and
Senior Advisor

#### Macroeconomic influences inflation vs. 60/40 portfolios



NDR

"During 'The **Golden Age of** 60/40,' from 1982 to 2020, 60/40 portfolios performed extremely well as inflation fell. If inflation settles in a range above the **Federal** Reserve's 2% inflation target, investors will find it harder to make money through a passive 60/40 approach."

Joe Kalish, NDR's Chief Global Macro Strategist

#### Macroeconomic influences inflation vs. 60/40 portfolios

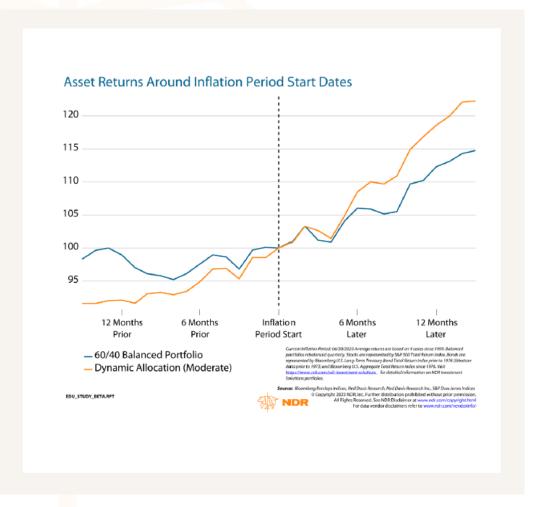
"A more active approach in terms of asset allocation, geographical positioning, and sector/ industry/security selection will pay a greater role in generating returns."



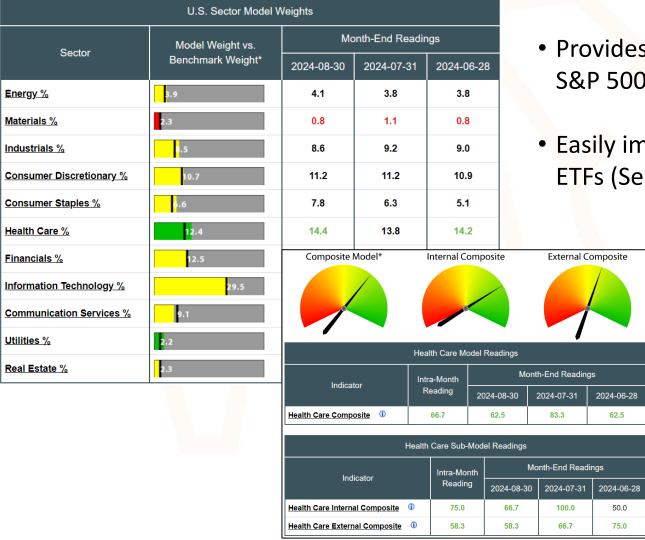
Joe Kalish

NDR's Chief Global Macro

Strategist

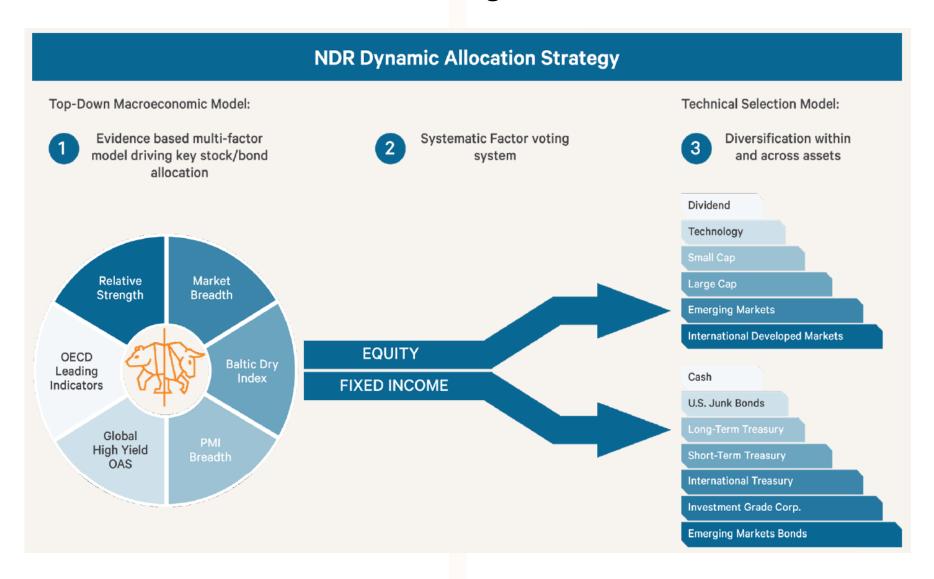


## Modeling developed markets U.S. Sector example



 Easily implementable with ETFs (Sector SPDRs)

## **Model Portfolios for Wealth Managers**



## Modeling developed markets – Future development











Alternative data

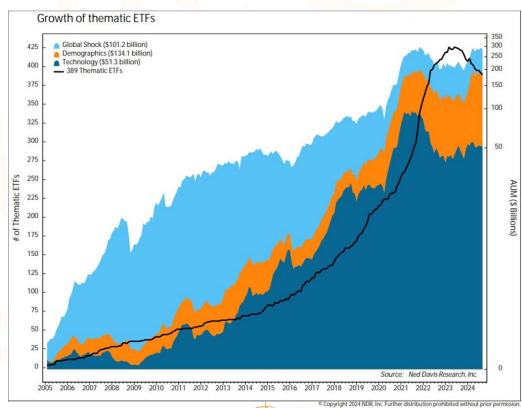
Al implementation / NLP

Thematic Investing





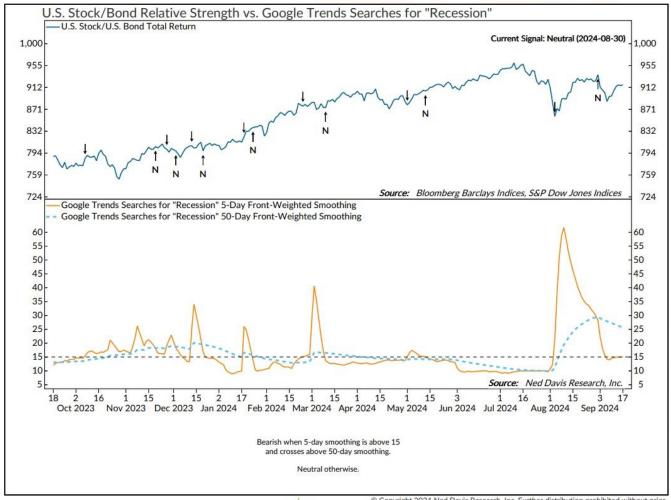
Video Games Cloud Infrastructure



NDR

opyright 2024 NDR, Inc. Further distribution prohibited without prior permissio All Rights Reserved. See NDR Disclalmer at www.ndr.com/copyright.htr For data vendor disclalmers refer to www.ndr.com/vendorinf

# Alternative Data U.S. Stock / Bond Allocation vs. Google Search



Part of U.S. Asset
 Allocation Model

 Rising volume of Google searches for "recession" coincide with U.S. equity drawdowns



© Copyright 2024 Ned Davis Research, Inc. Further distribution prohibited without prior permission. All Rights Reserved. See NDR Disclaimer at www.ndr.com/copyright.html.

For data vendor disclaimers refer to www.ndr.com/yendorinfo/

# Al Implementation – Natural Language Processing (NLP)

 NLP, or Natural Language Processing, is a form of Artificial Intelligence that enables machines to break down and interpret natural human language.

- Natural human language is full of ambiguity and is constantly evolving language (especially on social media).
- NLP leverages the latest Deep Learning techniques to take unstructured data (like news articles, chats, tweets, etc.) and enable the machine to 'learn' the meaning from the text.

## Thematic Opportunities Score

NDR Thematic Opportunities Score quantifies how closely a company's business description aligns with a user-defined theme.

- Proprietary NLP-based algorithm compares the descriptions of over 60,000 global companies to the selected target
- Score ranges from 0 (not at all related) to 100 (perfectly aligned with theme)
- "Themes" can be topics like "electric cars" or "cloud computing" ...or more abstract like "travel to Mars"
- Themes are defined by target companies (like Tesla for "electric cars") and/or keywords (like "battery")

## Thematic Scoring Example 5G Winners Portfolio

#### Objective:

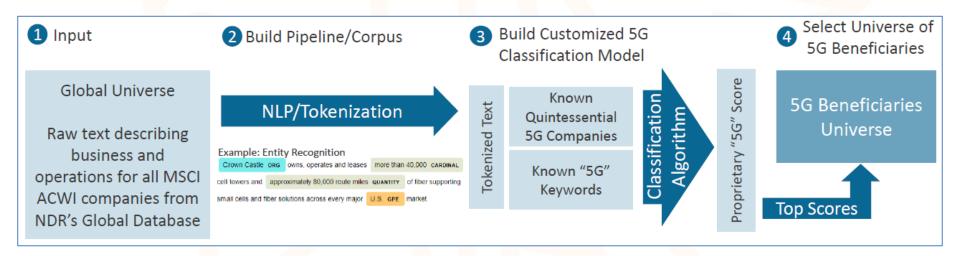
Select companies best positioned to capitalize on the "5G" movement

# Natural Language Processing & Machine Learning Algorithm to Identify 5G Beneficiaries **Model Refinement** 5G Beneficiaries Fundamental & Technical Screen, **5G Winners** Strategists Identify Strategy Top Picks Evaluation **5G Portfolio**

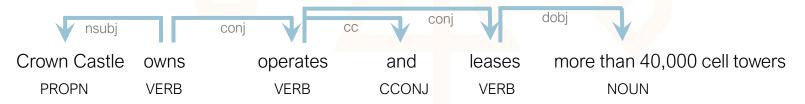
Global Stock Universe

### Thematic Scoring Example 5G Winners Portfolio

 Use NLP and Machine Learning to identify companies that support and/or benefit from the growth of 5G communication



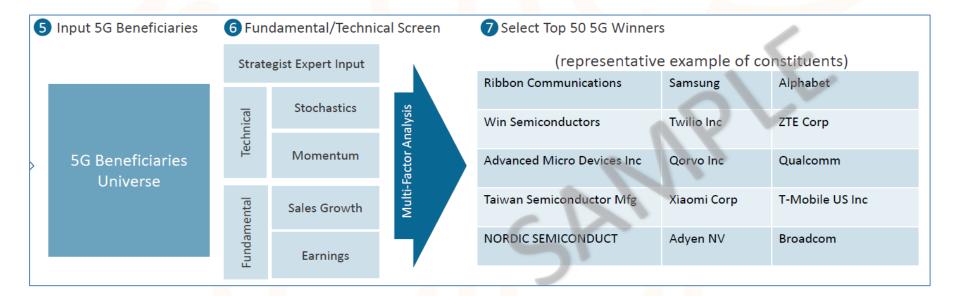
Example: Text Relationships and POS Tags



Ned Davis Research

## Thematic Scoring Example 5G Winners Portfolio

2. Expert developed fundamental and technical selection criteria used to distinguish best positioned companies from 5G Beneficiaries Universe



## Thematic Opportunities Score - Implementation

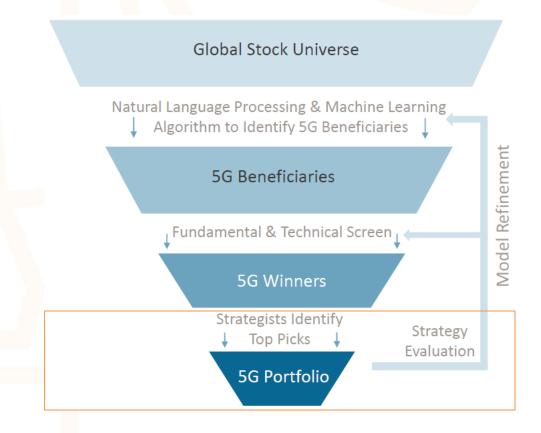
The Thematic Opportunities Score augments NDR's traditional 360° approach with cutting-edge NLP algorithms to quantify alignment to specified themes with maximum efficiency.

#### Valuable use cases:

- Thematic Index/ETF creation (Broad Exposure)
- Thematic Stock Portfolio creation (Targeted Exposure)
- Thematic Relevancy

#### Bottom Line – Quant Signal + Human Overlay

Final portfolio selection based on multi-factor quantitative model with Strategist oversight



# Bottom Line – x5 major investment themes for the next decade

	Real GDP	Inflation	Potential impact
Al and innovation	<b>^</b>	<b>\</b>	<ul> <li>Increased investment and potential productivity gains</li> <li>May take several years before economy-wide productivity boost</li> <li>Starting in the U.S., but spillover to other economies</li> </ul>
Deglobalization	<b>\</b>	<b>^</b>	<ul> <li>Reconfiguring supply chains, near-shoring, ally-shoring</li> <li>Prioritizing security over efficiency</li> <li>Reduced trade flows. Untapped comparative advantage =&gt; loss of productivity</li> <li>Reduced foreign demand for financial assets, such as government bonds</li> </ul>
Demographics	¥	$\uparrow \downarrow$	<ul> <li>Slower labor force growth</li> <li>Tighter labor markets</li> <li>Rising old-age dependency ratio</li> <li>Reduced aggregate demand with aging</li> </ul>
Fiscal challenges	¥	<b>↑</b>	<ul> <li>More burdensome debt service</li> <li>Upward pressure on interest rates</li> <li>Crowding out of private investment</li> <li>Central banks may become more tolerant of higher inflation</li> </ul>
Clean energy transition	$\uparrow \downarrow$	<b>↑</b>	<ul> <li>Reduced investment in fossil fuels</li> <li>Increased demand for clean energy commodities, such as metals, used in EV batteries</li> <li>Government incentives for clean energy development</li> </ul>

#### Bottom Line – Tactical market outlook



Tim Hayes, CMT Chief Global Investment Strategist



Ned Davis
Senior Investment Strategist



Ed Clissold, CFA Chief U.S. Strategist



Alejandra Grindal
Chief Economist



Pat Tschosik, CFA, CMT Senior Portfolio Strategist



Joe Kalish Chief Global Macro Strategist



Brian Sanborn, CFA
Managing Director, Global Head of
Investment Solutions



Veneta Dimitrova Senior U.S. Economist



Matt Bauer, CFA Commodities Strategist



Amy Lubas, CFA
VP, Investment Solutions



Mark Phillips, CFA
European Equity Strategist



Rob Anderson, CFA U.S. Sector Strategist

#### Do expect

- Soft Landing
- Sluggish 2H GDP (< 2%)
- Volatility next few months
- Potential yearend rally

#### Do not expect

- Recession
- Major shift to bonds
- Secular bear market in equities

#### **NED DAVIS RESEARCH**

NDRsales@ndr.com www.ndr.com (800) 241-0621

#### SARASOTA

3665 Bee Ridge Road Suite 306

Sarasota, FL 34233

United States

800 241 0621 (U.S. & Canada)

941 412 2300

#### **NEW YORK**

1270 Avenue of the Americas

11th Floor

New York, NY 10020

(800) 241-0621

#### LONDON

4 Bouverie Street

Temple, London

EC4Y 8AX

+44 20 7779 8454

#### HONG KONG

12/F. 8 Queen's Road Fast

Wan Chai

Hong Kong

+852 3416 6676



#### See the Signals.TM

Founded in 1980, NDR (Ned Davis Research) is a leading independent research firm with clients around the globe. With a range of products and services, we deliver award-winning solutions to the world's leading investment management companies. Our clients include professionals from global investment firms, banks, insurance companies, mutual funds, hedge funds, pension and endowment funds, and registered investment advisors. NDR uses the weight of the evidence, a 360-degree approach, to frame our market insights. Evidence, data that has been continually amassed over decades, shapes historical perspective and allows us to build proprietary indicators and models. We use this methodology to help our clients make objective investment decisions.



#### Important Information and Disclaimers

The data and analysis contained in NDR's publications are provided "as is" and without warranty of any kind, either expressed or implied. The information is based on data believed to be reliable, but it is not guaranteed. NDR DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.

NDR's reports reflect opinions of our analysts as of the date of each report, and they will not necessarily be updated as views or information change. All opinions expressed therein are subject to change without notice, and you should always obtain current information and perform due diligence before trading. NDR or its affiliated companies or their respective shareholders, directors, officers and/or employees, may have long or short positions in the securities discussed in NDR's publications and may purchase or sell such securities without notice.

NDR uses and has historically used various methods to evaluate investments which may, at times, produce contradictory recommendations with respect to the same securities. When evaluating the results of prior NDR recommendations or NDR performance rankings, one should also consider that NDR may modify the methods it uses to evaluate investment opportunities from time to time, that model results do not impute or show the compounded adverse effect of transaction costs or management fees or reflect actual investment results, that other less successful recommendations made by NDR are not included with these model performance reports, that some model results do not reflect actual historical recommendations, and that investment models are necessarily constructed with the benefit of hindsight. Unless specifically noted on a chart, report, or other device, all performance measures are purely hypothetical, and are the results of back-tested methodologies using data and analysis over time periods that pre-dated the creation of the analysis and do not reflect tax consequences, execution, commissions, and other trading costs. For these and for many other reasons, the performance of NDR's past recommendations and model results are not a quarantee of future results.

Using any graph, chart, formula, model, or other device to assist in deciding which securities to trade or when to trade them presents many difficulties and their effectiveness has significant limitations, including that prior patterns may not repeat themselves continuously or on any particular occasion. In addition, market participants using such devices can impact the market in a way that changes the effectiveness of such devices. NDR believes no individual graph, chart, formula, model, or other device should be used as the sole basis for any investment decision and suggests that all market participants consider differing viewpoints and use a weight of the evidence approach that fits their investment needs. Any particular piece of content or commentary may or may not be representative of the NDR House View, and may not align with any of the other content or commentary that is provided in the service. Performance measures on any chart or report are not intended to represent the performance of an investment account or portfolio, as some formulas or models may have superior or inferior results over differing time periods based upon macro-economic or investment market regimes. NDR generally provides a full history of a formula or model's hypothetical performance, which often reflects an "all in" investment of the represented market or security during "buy", "bullish", or similar recommendations. This approach is not indicative of the intended usage of the recommendation in a client's portfolio, and for this reason NDR does not typically display returns as would be commonly stated when reporting portfolio performance. Clients seeking the usage of any NDR content in a simulated portfolio back-test should contact their account representative to discuss testing that NDR can perform using the client's specific risk tolerances, fees, and other constraints.

NDR's reports are not intended to be the primary basis for investment decisions and are not designed to meet the particular investment needs of any investor. The reports do not address the suitability of any particular investment for any particular investment for any particular investors. The reports do not address the tax consequences of securities, investments, or strategies, and investors should consult their tax advisors before making investment decisions. Investors should seek professional advice before making investment decisions. The reports are not an offer or the solicitation of an offer to buy or to sell a security.

Further distribution prohibited without prior permission. Full terms of service, including copyrights, terms of use, and disclaimers are available at https://www.ndr.com/web/ndr/terms-of-service.

Copyright 2024 (c) Ned Davis Research, Inc. All rights reserved.