ENHANCE QUANTITATIVE RESEARCH WITH DATA DERIVED FROM TRADITIONAL AND SOCIAL MEDIA

RavenPack analyzes unstructured content from thousands of publications to extract information on named entities and financially-relevant events in the public eye.

WHY RAVENPACK?

- Structured data in a form that allows users to control for media effect and create innovative research based on news and social media; over 16 years of historical data available timestamped to the millisecond.
- Coverage of tens of thousands of companies, government organizations, places, currencies and commodities for studies in any asset class.
- The most detailed event taxonomy of any analytics provider, covering corporate, economic, societal, environmental and political events including unscheduled events.

Datasets Available

<table>
<thead>
<tr>
<th>EQUITIES</th>
<th>GLOBAL MACRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>Organizations, Commodities, Currencies, Places</td>
</tr>
<tr>
<td>40,000+ entities</td>
<td>200+ economies</td>
</tr>
<tr>
<td>Global Coverage</td>
<td>130,000+ places</td>
</tr>
<tr>
<td>Events that affect companies and equity markets</td>
<td>Used in the trading of other instruments and/or used to add an interpretation of geopolitical events</td>
</tr>
<tr>
<td>Calculate risk, balance portfolios, generate alpha</td>
<td>Calculate risk, trade fixed income and FX</td>
</tr>
</tbody>
</table>

RESEARCH WITH RAVENPACK

- Intermarket Competition: Evidence from Trading Venue
  Short Sales. M. Samadi
  (University of North Carolina)

- The Informational Role of the Media in Private Lending.
  (University of Chicago, Booth School of Business)

- Corporate Use of Social Media, M.J. Jung, J.P. Naughton, A. Tahoun, C. Wang
  (New York University)

- Spreading the Word: Capital Market Consequences of Business Press Coverage of Management Earnings Guidance, B. Twedt
  (Texas A&M University)

ACCESS EQUITIES AND GLOBAL MACRO THROUGH THESE FOUR EDITIONS

- Dow Jones Edition
  Dow Jones Newswires, regional editions of the Wall Street Journal, Barron's and MarketWatch

- Web Edition
  Hundreds of thousands of articles a day from leading publishers and web aggregators using 19,000+ sources

- PR Edition
  Analyzes news from global media organizations including PRNewswire, Canadian News Wire, and LSE Regulatory News Service

- Full Edition
ABOUT RAVENPACK
RavenPack develops and distributes structured data products from unstructured content. The firm is the leader in news analytics which involves turning news into numbers so they can be easily manipulated and consumed by quantitative models and trading programs. RavenPack classifies news items using multiple sophisticated sentiment detection algorithms. In addition, RavenPack generates a number of non-sentiment analytics including information about companies, events, relevance, and market impact. Outputs are often in the form of numerical news scores that can be used as inputs in the calculation of company, sector, and industry indicators. News Analytics are used to power a number of applications ranging from high frequency trading applications requiring low latency inputs, to risk and asset management applications requiring factors whose time resolution may be daily, weekly, and monthly. There is strong empirical evidence that RavenPack News Analytics have explanatory and predicative power in three dimensions: market direction, volume, and volatility. Beyond some of the world’s top industry clients, RavenPack is working with a number of partners and academic researchers who are using news analytics in their applications and research endeavors.

ABOUT WRDS
Wharton Research Data Services (WRDS) provides the leading business intelligence, data analytics, and research platform to academic, government, and commercial institutions — enabling comprehensive thought leadership, historical analysis, and insight into the latest innovations in research.

WRDS democratizes data access for researchers across all disciplines, accessing multiple programming languages to easily search for concepts within the data repository. DART Paths by WRDS (LINK) — new, online learning and instructor pathways — provide curated, guided, online resources for Researchers, Instructors, and Information Professionals. Through Data, Analytics, Research and Technology, approach your research using real world examples and advance your analysis to answer the most critical questions with your data.

WRDS is more than just a data platform. Supporting over 75,000 commercial, academic, and government users at 500+ institutions in 35+ countries, WRDS is the global gold standard in data management, innovative tools, analytics, and research services — all backed by the credibility and leadership of the Wharton School.

ABOUT THE WHARTON SCHOOL
Founded in 1881 as the world’s first collegiate business school, the Wharton School of the University of Pennsylvania is shaping the future of business by incubating ideas, driving insights, and creating leaders who change the world. With a faculty of more than 235 renowned professors, Wharton has 5,000 undergraduate, MBA, executive MBA and doctoral students. Each year 13,000 professionals from around the world advance their careers through Wharton Executive Education’s individual, company-customized, and online programs. More than 99,000 Wharton alumni form a powerful global network of leaders who transform business every day. For more information, visit www.wharton.upenn.edu.