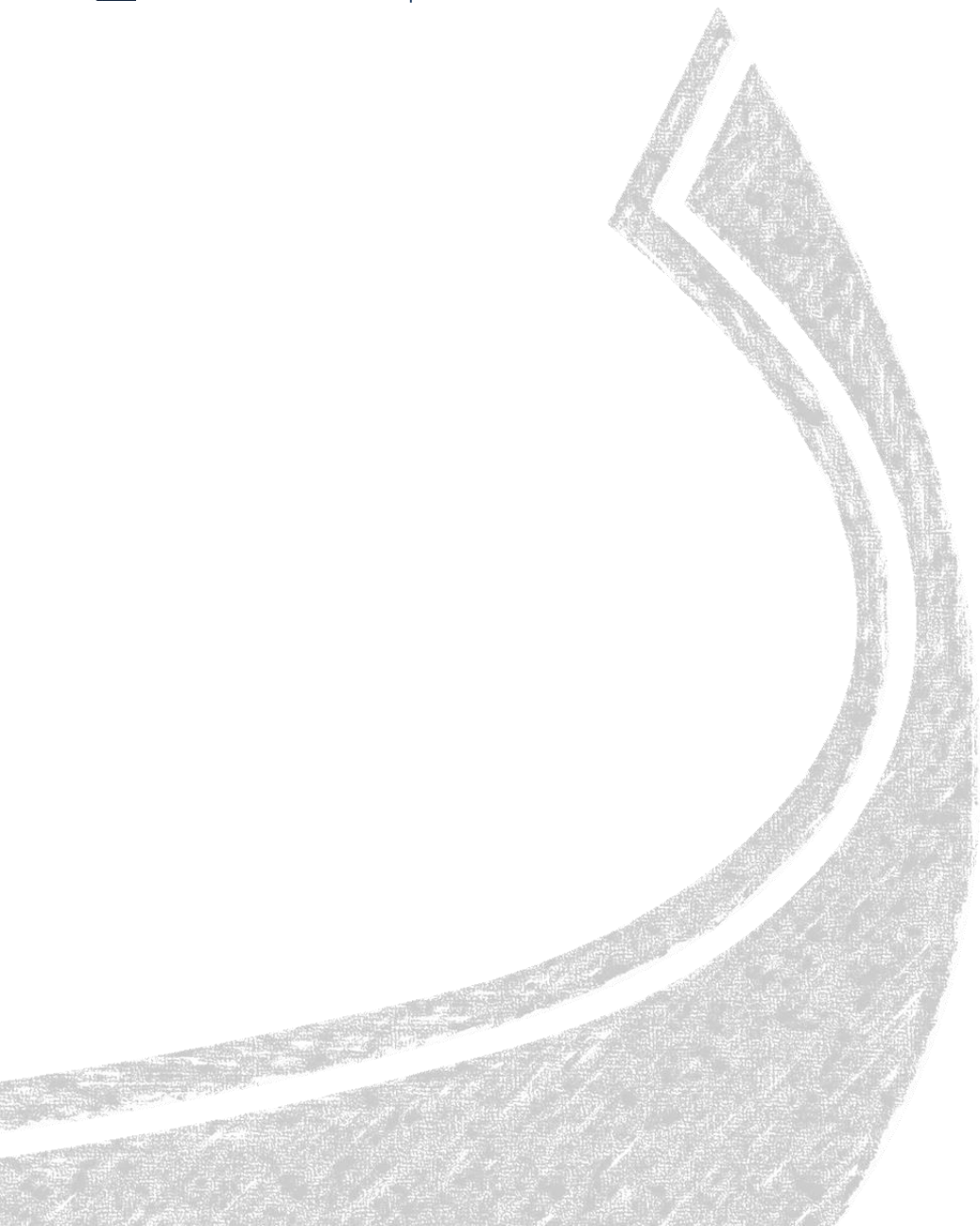




Charon Special  
Situations Group

CSSG RESEARCH OVERVIEW

19 NOVEMBER 2018



# CSSG Research Overview

Client Presentation

*A student-run independent investment research firm focused on covering quantitative and event-driven strategies*

Bloomberg recently featured an article about how Bank of America has “assembled a squad of six people, including four PhDs, to team up with 600 Wall Street analysts,” that uses “vast quantities of information pulled from nontraditional sources to forecast luxury spending, airline revenue and even the timing of the business cycle.” It goes on to describe UBS, State Street, and other financial institutions’ efforts to use billions of data points to analyze indexes, inflation, and other economic indicators.

While sell-side quantitative research generally focuses on macro factors, asset managers have been working on a more comprehensive scale. Some have been honing product offerings leading to a rise in alternative beta, liquid alts, passive strategies, and complex derivatives. Others have adopted transaction data, satellite imagery, weather analysis, sentiment analysis, geolocation, and video capture in researching single name stocks.

Charon Special Situations Group was founded by Georgia Tech students who saw an opportunity to take advantage of this secular trend. By providing curated data-based insights for fundamental fund managers, we believe we can add value to teams that cannot access quantitative insights due to prohibitive fees / compensation, corporate relationship structures, and lack of technical expertise. Instead of trying to automate the key decision maker, our goal is to provide the supplementary analyses that promote a more well-rounded vision.

This presentation seeks to share the way we see financial markets, how we approach our research process, and the advantages that our services offer our clients.



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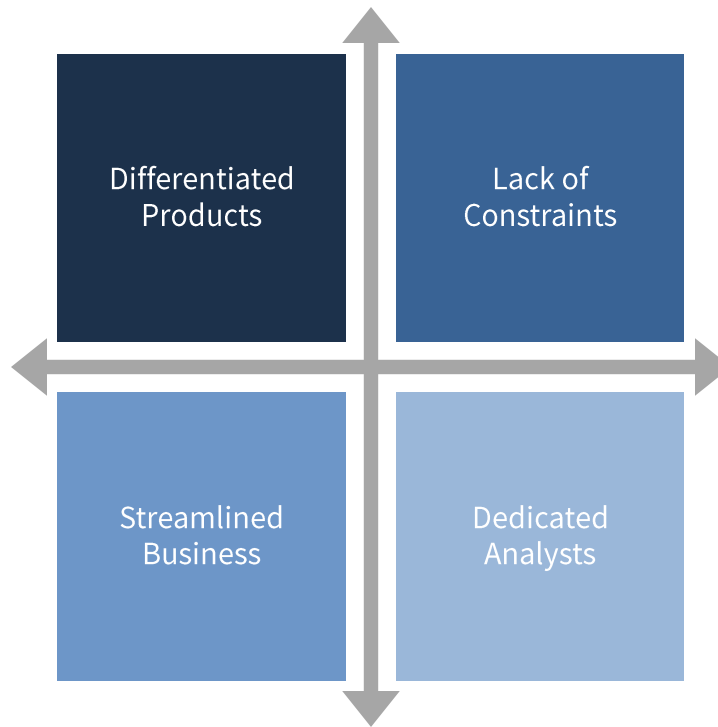


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Notes: The diagram on the right offers a sample selection of strategies that CSSG researches  
Sources: Bloomberg, Forbes

*Our objective is to provide a unique research offering and create long-term relationships with financial professionals*

- Focus on unconventional asset classes and niche investment opportunities
- Integrated investment research and quantitative platforms not available to most fundamental fund managers
  - Rigorous backtesting, web scraping, regression, and forecasting
  - Fundamental equity / credit analyses
- Entirely bottom-up, proprietary modeling, programming, and analytics capabilities
- Monthly reports and weekly recaps provided on a regular basis
- Minimal (<\$20) annual subscription fees and a TBD commission fee to maintain website and operations
- Flat hierarchal structure with specialized assignments based on domain knowledge
- Analysts divided into investment and quantitative roles



- No regulatory oversight – simply college students publishing personal opinions
- No conflict of interest from proprietary trading or investment banking business
- No sector coverage restrictions or disclosure requirements
- No incentive to withhold proprietary insights, information, or models

Our analysts have:

- A combined 8+ semesters worth of internships at top firms
- Backgrounds in computer science from a top eight university program
- Time to pursue investment opportunities as full-time students
- An intrinsically motivated passion for finance, markets, and data science



*Charon produces two different sets of research products that can be accessed from our website*



## Proprietary Strategies

These strategies include original research and investment recommendations. While many of our analyses and pitches are fundamental in nature, others will make use of our proprietary quantitative analyses to backtest and forward test portfolios.

Charon also takes commissions for research on a consultation basis. Requests can be fulfilled by using the Contact Us section of our website or emailing [charonssg@gmail.com](mailto:charonssg@gmail.com). Fees, subject, and timeline will be decided through a mutual vetting process.



## Informational Research

Informational pieces consist of timely tear sheets, pitchbooks, and secondary research based on public information, sell-side commentary, and published data. Covered materials can range from substantive changes in 13F filings to publicly released transaction terms and activist proxy fights.

CSSG's Weekly Recap is one of these informational pieces that provides links to news that our analysts found interesting during the week. While not proprietary in nature, we find that publishing these reports helps hold ourselves accountable and aware of the economic climate.



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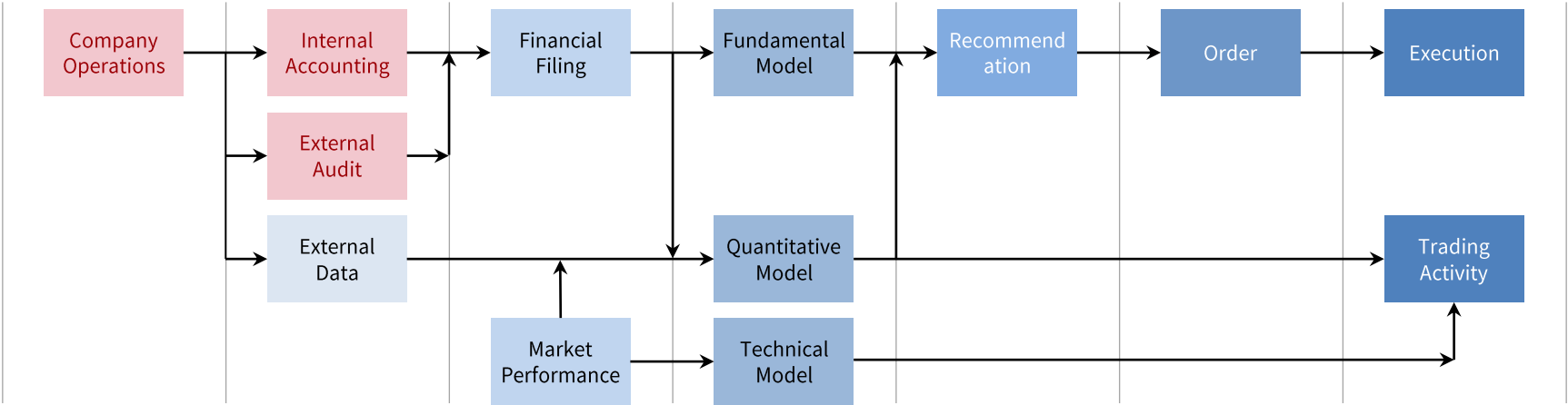
# Research Discipline



In Figure 1, we have outlined our high-level understanding of information processing. It's important to understand the data flow from issuing companies to asset managers because each step represents displacement (losses and gains in information) from primary to tertiary sources. Vertically integrated research practices such as Charon's are able to provide deeper insight by removing intermediaries and publishing how conclusions were reached. Our business is to add transparency, and unlike most funds, we don't have any conflicting interests since we don't deploy capital into our investment ideas.

Our approach is to arbitrage what different types of investors know and what the overall market is pricing in – by applying quantitative analyses to bridge different strategies.

Figure 1: Information Pipeline



For most fundamental and quantitative models, information is obtained externally or through financial filings. Technical models are not as common as most traders observe activities on a live basis, but we have aligned these different analyses as accurately as possible. The red text indicates sources that are often not legally obtainable.

In line with Figure 1, we can go further to identify three sources of primary data in Figure 2: Expert networks (former employees, CEOs, consultants with an approximately six month waiting period), forensic accountants (internal departments and auditors are usually off limits), and data brokers. Of the three, external data brokers are the most accessible and can offer data such as EDI information, third-party survey providers, satellite imaging, and mobile phone tracking.

On the sell-side, the fundamental research covers mid to large cap names that generate flow and is often siloed off from the sell-side quantitative research (which is largely macro). On the buy-side, coverage is less saturated, vertically aligned, and integrates quantitative elements – but not available for the average investor which is where Charon’s value is.

Figure 1: Information Pipeline

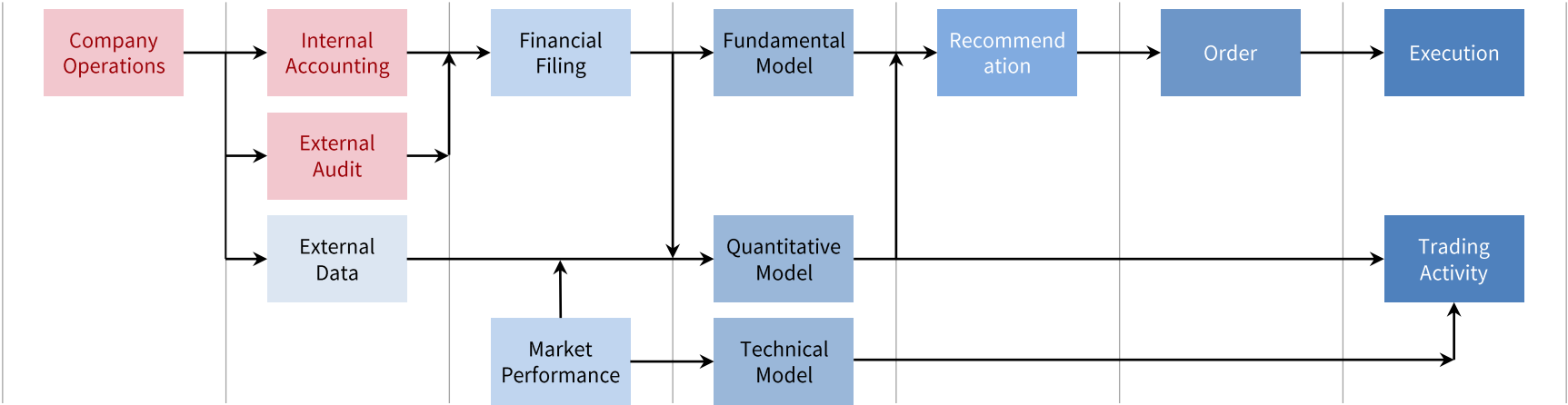


Figure 2: Data Sources



Figure 3 shows which investment strategies align with parts of the investment pipeline. Our goal is to bridge the gap between value / growth and what has recently been termed “quantamental” strategy by finding value in external data . We don’t focus on execution as would most low latency or high frequency firms do but instead supplement fundamental models with statistical components.

Figure 1: Information Pipeline

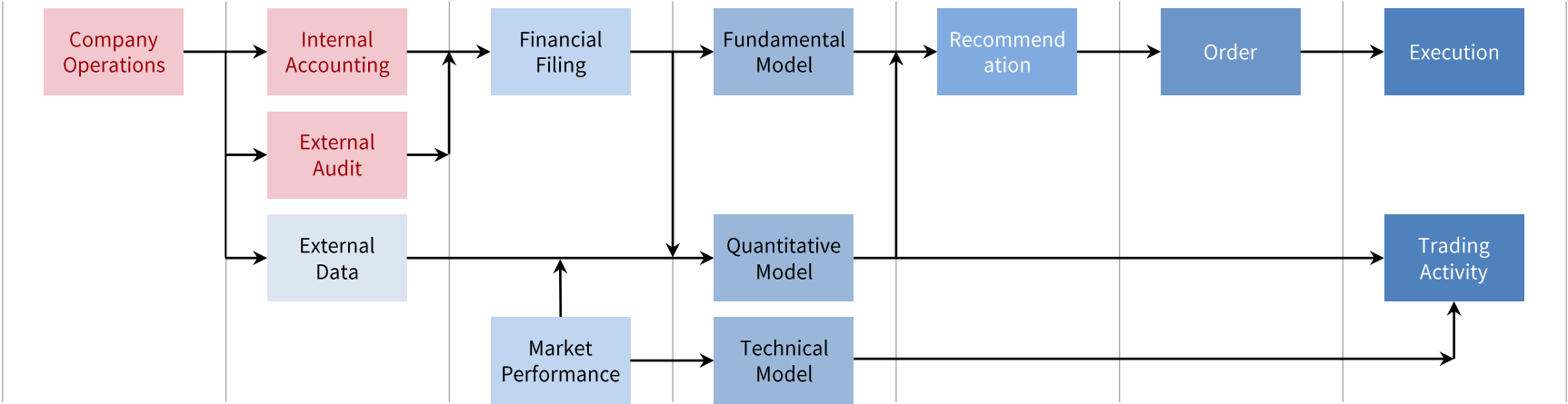
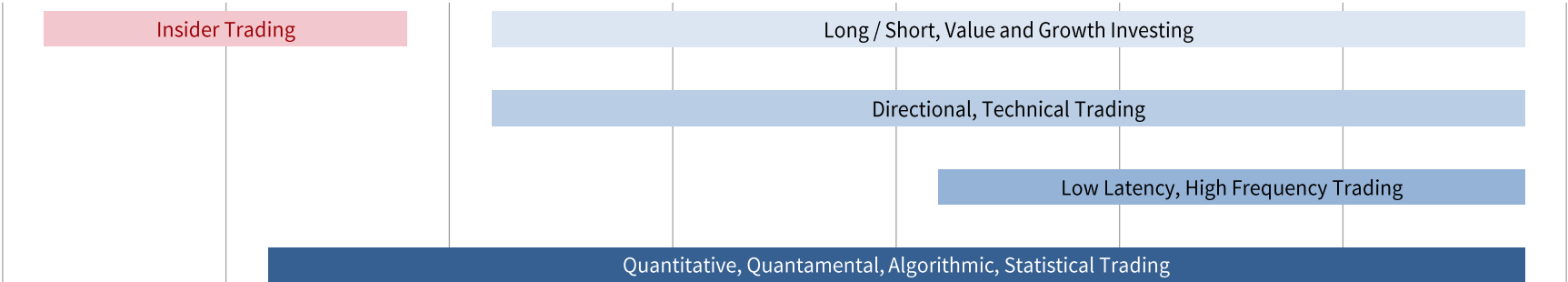


Figure 3: Investment Strategies





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# Appendix



Date	News	
11/13/2018	Bloomberg	BofA's Quant Squad Triples Research Clicks Amid Data Arms Race
11/18/2018	Forbes	<a href="#">UBS Asset Management Taps Alternative Data to Increase Alpha</a>
Title	Source	
Rankings	Georgia Institute of Technology	<a href="https://www.gatech.edu/about/rankings">https://www.gatech.edu/about/rankings</a>

**Important Disclosures**

The information and opinions in this report were prepared by Charon Special Situations Group and its members (collectively known as "CSSG" or "Charon SSG"). Though the information herein is believed to be reliable and has been obtained from public sources believed to be reliable, CSSG makes no representation as to its accuracy or completeness. Hyperlinks to third-party websites in this report are provided for reader convenience only. CSSG neither endorses the content nor is responsible for the accuracy or security controls of these websites.

**Analyst Certification**

The views expressed in this report accurately reflect the personal views of the analyst(s) about the subject issuer and the securities of the issuer. In addition, the analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report.



# Charon Special Situations Group

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Charon Special Situations Group (CSSG or Charon SSG) is an independent investment research firm focused on covering quantitative and event-driven strategies for institutional investors. Comprised of undergraduate students from the Georgia Institute of Technology, our team works to produce the highest quality investment research and share our publications with financial professionals in Atlanta and New York.

## **Hyunjae (Brian) Lee**, Investment Analyst

Brian is an incoming Global Markets Summer Analyst in RBC Capital Markets' FICC Origination division with previous experiences in leveraged finance and credit research at SunTrust Robinson Humphrey. Brian currently works in private wealth management at Morgan Stanley and studies computer science and finance at the Georgia Institute of Technology.

## **Anthony D'Achille**, Quantitative Analyst

Anthony is an incoming software engineering intern at HubSpot. He currently works in Home Depot's Supply Chain team on leveraging statistical methods and machine learning for load forecasting and has previous experience in full-stack web development. Anthony studies computer science at the Georgia Institute of Technology.

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